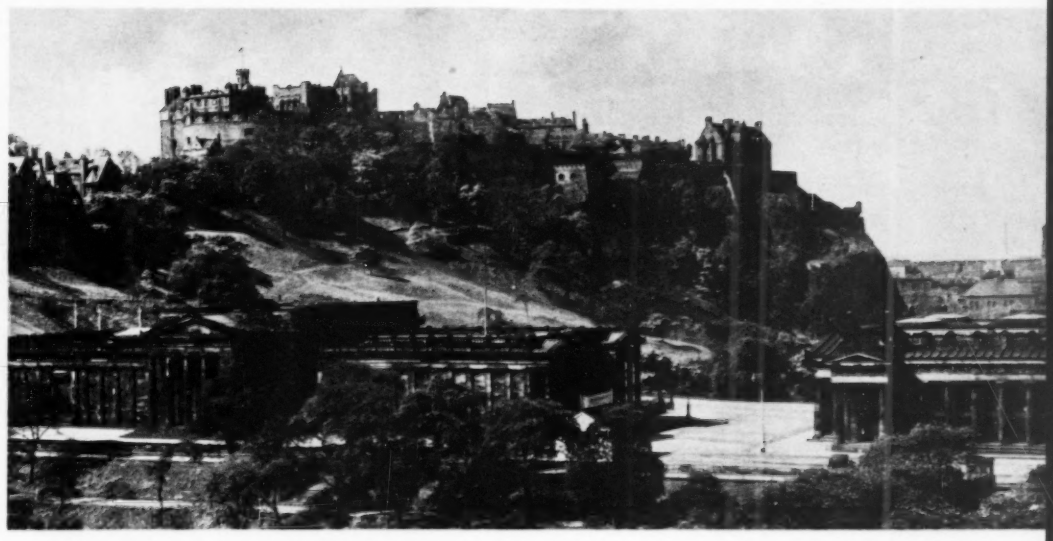
NOVEMBER, 1961 2s. 6d.



The Edinburgh Conference—a swing away from paternalism?

Personnel Management and Methods

Personnel problems in the Six

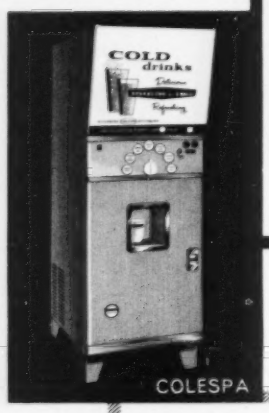
Maintenance Exhibition preview

Work of the Tavistock Institute

'The Greeks Had a Word For It'
A new system for visual presentation

FULL CONTENTS PAGE 1

HOTSPA



COLESPA

MINISPA

Reduce costs and let your workers choose with a DITCHBURN drink service

Not only do you *save* costs but you provide your workers with the finest *quality* and the widest *choice* of drinks available by installing a Ditchburn drink service.

Write for details to

DITCHBURN

VENDING MACHINES LIMITED

P.M.2 DIVISION LYTHAM LANCASHIRE Phone 7421

We are exhibiting a full range of our equipment on Stand D.12 at the International Factory Equipment Exhibition at Earls Court November 13—18th.

A MEMBER OF THE DITCHBURN ORGANISATION

Personnel Management and Methods

SELECTION · TRAINING · COMMUNICATION · INCENTIVES · WELFARE · SAFETY · LAW · CATERING · EQUIPMENT

November, 1961

3 *News and Comment* — DAVID FLEMING

5 *Personnel Management in Practice* — OWEN LLOYD

22 *Industry's Medicine Chest* — DAVID HUNT
The work of the Tavistock Institute of Human Relations

25 *They Want Everything* — TECHNICUSS
—Except hard work

26 *The Greeks Had a Word For It* — O. T. CURTIS
Visual Presentation for Mass Audiences

28 *Tougher Climate in the North* — HOWARD GRIFFITHS
I.P.M. Annual Conference

32 *Another success for the BEE* — JOHN OFFORD
Pictorial review of the 49th Business Efficiency Exhibition

34 *Problems in the Six* — ALAN BEATON
Preparing for entry into the Common Market

41 *Showplace for Industry's 'Silent Service'* — CHARLES MACDONALD
A Preview of the First National Maintenance Exhibition

Editor
Alan Bartleman

Art Editor
Douglas Long

Editorial Director
George Copeman, Ph.D.

Advertisement Manager
Lewis J. Myers

Sales Director
J. Hinchcliff

News and Readers' Service

2 PERSONNEL APPOINTMENTS
9 LETTERS TO THE EDITOR
31 BOOKSHELF
44 EQUIPMENT MARKET
54 MANAGEMENT DIARY
55 Reader's Enquiry Service
56 BUYERS' GUIDE

Advertisements, editorial and sales offices: Mercury House, 109-119 Waterloo Road, London, S.E.1 (Waterloo 3388). Post free subscription for 12 issues: United Kingdom and Eire, 35s. All other countries, 35s., or local currency equivalent.

© 1961 Shaw Publishing Co. Ltd. (a member of the Business Publications Group.

CHANGE OF SUBSCRIBER'S ADDRESS. Please inform the Publishers six clear weeks in advance and include present address as well as new address required.

PERSONNEL APPOINTMENTS

THORN ELECTRICAL INDUSTRIES LIMITED

require an additional

PERSONNEL OFFICER

Applications are invited from university graduates with a diploma in personnel management and supporting industrial experience.

This newly created post is part of a long-term programme and selected applicant should be prepared to cultivate the labour policy of the Group, whilst gradually assuming a position of responsibility at the Group's manufacturing headquarters or at one of its satellite factories.

The right personality, organising ability and drive, together with a zest for hard work, are essential.

Brief written applications should be sent in complete confidence to the :

GROUP PERSONNEL MANAGER
THORN ELECTRICAL INDUSTRIES LIMITED
Great Cambridge Road, Enfield, Middlesex

The Wellcome Foundation Ltd.

Burroughs Wellcome & Co. invite applications for the post of

PERSONNEL OFFICER

at the Wellcome Chemical Works, Dartford, Kent.

Applicants, who should be men, should have a sound knowledge of personnel management and some experience as a Personnel Officer. The possession of a University degree or a Diploma in Personnel Management would be an advantage. The successful applicant will be responsible to the Personnel Manager for employment and welfare duties in connection with all weekly and hourly paid employees in the factory (1,500). He would also be responsible for the control of personnel records and other general duties connected with the personnel function which is very well established. The post is interesting and progressive. Salary will be in accordance with experience and qualifications.

Written applications should be sent to the Personnel Manager, Wellcome Chemical Works, Dartford, Kent.

PERSONNEL MANAGERESS

Wallis & Linnell Ltd. of Kettering, Northants, a private company manufacturing men's and boys' outerwear and employing over 500 persons, predominantly female, require a person to fill this post.

The Personnel Manageress will be responsible for all personnel relations at our five factories in the Kettering area, selection and recruitment, and the efficient implementation of training methods.

Please write giving details of age, education, qualifications, practical experience and present salary to:—

Mr. G. B. Linnell, Wallis & Linnell Ltd., Kettering, Northants.

STAFF TRAINING ORGANISER

An experienced and well qualified Training Organiser will shortly be required for a large retail organisation in the Midlands. Work will be largely concerned with training of all levels of retail sales staff but may involve work with other categories of labour. This is a senior position within the Personnel Department and will carry a four figure salary.

Applications giving full details of age, experience etc. will be treated in strictest confidence. **Box No. PA. 74.**

A FREE GUIDE TO BUSINESS CAREERS

Send for this valuable 100-page book which explains how you can qualify through Home Study Courses for a well paid position as

ACCOUNTANT · AUDITOR
COST ACCOUNTANT · CASHIER
COMPANY SECRETARY
OFFICE MANAGER ETC.

The School of Accountancy with their 50 years of successful career-building can help you to take advantage of the expanding market for trained and qualified men.

The School of Accountancy

78 Regent House, 6 Norfolk Street, Strand, London, W.C.2 *(and at Glasgow)*

by David Fleming

news and comment

SELWYN LLOYD'S wage freeze shows no sign of a thaw. The pause may bring a temporary lull in the activities of the labour relations officer, but what is going to happen when the flag comes down and the 'gold rush' is on? This question would be easier to answer if we felt sure that the Chancellor had a reliable crystal ball.

It looks at times as if what he is planning is a revolution in collective bargaining, comparative Guillebaud studies and most current systems of fixing wages.

In September, at a meeting with representaives of white collar unions, he said that he wanted to maintain arbitration machinery and only withdraw from arbitration the dating of awards. Since then his aims appear to have become more ambitious. In October a decision by the Industrial Court to award £1 a week to Admiralty employees was overruled by the Government. The recommendations of Wages Councils in many cases have been similarly disregarded. This treatment of accepted machinery can only be explained if we suppose that the Chancellor intends to replace it with another system. Beyond a plan for yet another Government advisory body to be called the National Economic Council the answer has still to be revealed.

When the Electricity Council referred to the pay pause in answer to union claims the unions hotly repudiated such a reason as being "political". This kind of reaction seems to me to be a natural reflection of the insecurity which is produced when long established procedures are toyed with.

The simple remedy is for Selwyn Lloyd to declare his plans and restore some of the confidence which is essential to our industrial peace.

'CULTURE for the Common Man' was Arnold Wesker's rallying cry to the T.U.C. It may help this institution to take note of the lead given by private business.

L. G. Harris & Co., Bromsgrove paint-brush manufacturers, exhibited pictures and sculpture in their office-block for a week and held evening talks and art films in the conference room. Workpeople were interested enough to walk around in their lunch hour but did not attend evening programmes so well.

G. F. Chance, an executive of the firm and the 'Festival Director', thought this natural. Few people want to spend their leisure time in the place where they work.

Unless, of course, it happens to be for overtime (paid).

ACCORDING to E. F. Lewis, President of the Office Appliances and Business Equipment Trades Association, there is a growing demand for the good saleswoman—one who can sell business machines. He claims that one of the reasons for this is that there is a "better class of women available at the moment than there is of men".

However, there appear to be a number of deterrents, the more obvious being the hard work involved, the need for a sound knowledge of business, and the ability to "grasp figures".

In his opinion the good saleswoman could be earning more than £2,000 a year. With this kind of bait as a natural answer to the tougher prospective customers it should not be long before each salesforce gets its 'femme fatal'. Also a chance for Britain to improve on her position in the world—currently seventh—in the use of business machines.

ARE we going even further in the wrong direction? This was my depressed reaction after reading in the Ministry of Labour Gazette that the number of wage earners paid under piece-work and bonus systems has risen again to nearly 35 per cent.

Two points worry me. First, how many of these systems are bogus? And second, I could not help thinking about the Steel Company of Wales. This company is a prime example of the excessive application of incentive schemes, but the pattern is familiar elswhere.

Incentives are excellent tools for boosting production in order to pull back the capital investment in times of expansion. But then production reaches a peak where further improvement must stem from technical development rather than human effort. At this stage incentive schemes are still in force, yet their influence can do little to increase production performance.

Why do we keep running backwards? To me it is obvious that the rapid technological advance which has taken place in this country demands a system of realistic time rates.

YOUNG people are generally held to be irresponsible. If this is true then it's a very good reason why employers should endeavour to show more responsibility towards them.

The report of the Chief Inspector of Factories shows that there were 190,000 industrial accidents in 1960. This is the highest figure for 10 years. The greatest increase in accidents involved young people who were particularly prone to injuries from machines.

It prompts me to suggest that while one set of safety rules might prove satisfactory when dealing with the older and more experienced employee they are invariably less suitable where the 16 or 17 year old is concerned.

If you find two sets of safety rules impracticable, or even a compromise, at least make sure that your induction scheme gives the strongest possible emphasis to safety. So that young entrants know their enemy.

PERSONNEL APPOINTMENTS (cont.)

PERSONNEL OFFICER

Either sex, required for developing Portsmouth Clothing Factory.

Write stating full experience and qualifications to Box 9628

Frost-Smith Advg.,
64 Finsbury Pavement,
London, E.C.2.

MANAGEMENT TRAINING
Study at home for Management in Industry and Commerce. Guaranteed coaching for all major exams, I.C.W.A., B.I.M., A.C.C.S., C.I.S., Cert. in Foremanship. Also many non-examination Courses including Work Study and Computer Programming. No books to buy. Write for FREE Prospectus stating subject to I.C.S., Intertext House, Parkgate Road, (Dept. 468), London, S.W.11.

PERSONNEL ASSISTANT

A Progressive light engineering Company in the Wolverhampton District have a vacancy in the Personnel Department for a Male Assistant (not under 25 years of age).

The applicant will be required amongst other duties to assist the Company's Training Officer and also to handle the Company's wide Social and Sporting activities, for which he will need to have a keen interest.

Applications giving details of age and experience should be addressed to the :

Personnel Officer, Box No. PA75

THE JOSEPH RANK GROUP
have a vacancy for a

REGIONAL PERSONNEL MANAGER

in the Scottish Region of their Bakery Division, attached to the Regional Headquarters in Glasgow.

The man appointed will be responsible for the planning and execution of training courses for salesmen, operatives and trainees and for advising on the recruitment, selection, appraisal and development of personnel at various levels.

Candidates aged 30-35, should have had a sound basic education and at least some years' experience of training or personnel work in industry. Knowledge of the retail or food trades would be an advantage.

The position is permanent and offers considerable scope for initiative.

An attractive salary is envisaged and there is a contributory pension scheme. It will be necessary to drive a car, which will be provided.

Apply, giving age and brief details of previous experience and salaries earned to:—

The Group Staff Manager,
The Joseph Rank Group,
53 Eastcheap, London, E.C.3.
quoting Ref: 16R/61

A watch on the watchman

Gives you positive, printed proof that your premises are guarded ALL night

By means of key-boxes sited at strategic points, all of which the night watchman must visit in order to actuate the clock's mechanism, LLEWELLIN'S clocks provide a printed record of the time and regularity of the patrols in your building—all night—every night—the only sure method of preventing loss by fire or burglary.

Watchmen's clocks

LLEWELLIN'S

Write today for an estimate on your premises

LLEWELLIN'S MACHINE CO. LTD.,
KING SQUARE, BRISTOL TELEPHONE: 2-0891 2-0875

Personnel Management

IN PRACTICE

by Owen Lloyd

"IN the rush of day-to-day work we seldom, if ever, have the time to just sit down and think about our job. To ask ourselves, and each other, whether we are setting about it the best and most efficient way: whether perhaps better results could be got by using other methods." These are the words of C. Curtis, chairman of the supervisors' organization at **Carreras Ltd.** Well, he and other supervisors of the company have just had the opportunity to "sit down and think about it." A few weeks ago the Carreras organization held their first Supervisors' Conference at Chelmsford.

In his opening address to the 200 supervisors who attended, C. A. C. Bulpitt, a director of the company and managing director of **Carreras Rothmans Manufacturing Division,** said that there were three principle reasons for the conference. First, to foster a stronger sense of unity in an increasingly large organization; secondly, to improve each delegate's knowledge not only of his own job, but also of his colleagues as well, and, thirdly, in a spirit of friendship and determination, to find solutions to management problems.

Needless to say, the conference was a great success.

★

IS it fair that when recruiting employees the employer knows all about the applicant and the applicant usually knows nothing about him? **Michael Nairn and Co.,** linoleum manufacturers in Kirkaldy, Fife, ran a pre-employment scheme during the school holidays to give prospective applicants an idea of what industry involved.

Twenty-eight pupils in their final year at the local secondary school did a fortnight's work with the firm on routine factory and office jobs. Starting at 7.30 in the morning, they worked until 5 p.m. Though they all admitted to feeling tired in the first four days, by the end of the two weeks they indicated that they would willingly have gone on.

The experience certainly helped them to make up their minds more clearly on where their future lies. When questioned about their impressions of the work, some expressed dislike for factory life, but there were more who said they were pleasantly surprised to find out how interesting it could be. Few of them showed much enthusiasm for 'the boss's job'.

A useful way of making sure that those of the 28 who come back in a year's time will know what they want and know that the firm can give it.

★

SETTING an example in safety measures, the New Zealand High Commissioner, the Hon. T. L. Macdonald, and the Minister of Finance, the Hon. H. R. Lake, donned regulation safety helmets at a recent topping out ceremony. They climbed 229 ft. to the roof of New Zealand House for Mr. Lake to place the last skip of concrete to complete the roof.

H. Osborne, safety and labour officer for the building department of **Holland & Hannen and Cubitts (Great Britain) Ltd.,** contractors for New Zealand House, commented, "It is a fine example for the men when two important visitors agree to wear helmets on the site. Their action impressed the men and anything that will make them more safety conscious is valuable".

It is obvious that the building industry is endeavouring to become more safety conscious. Cubitts are a good example. Figures show that in the first six months of this year the company's accident frequency rate fell to 1.67, as compared with 2.24 in the same period of last year.

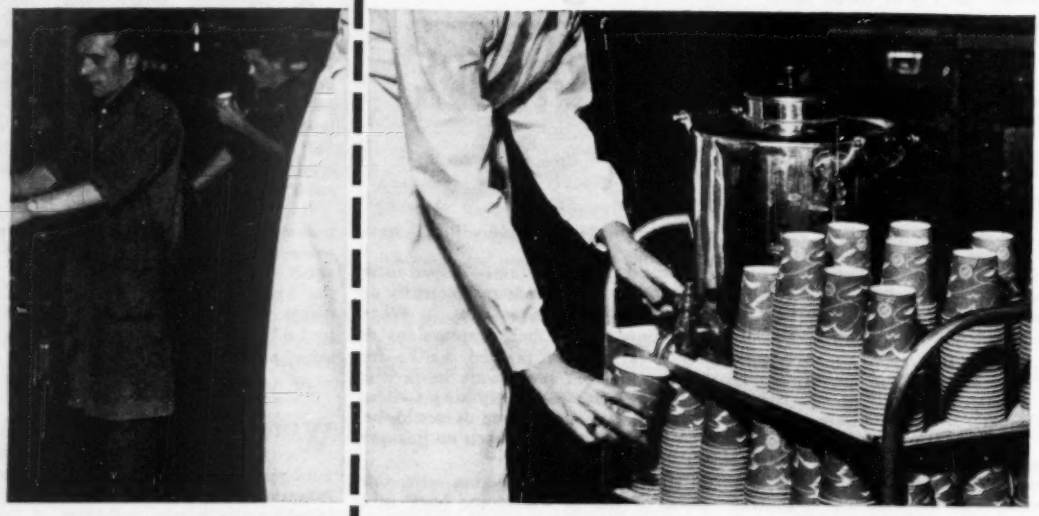
★

WHILE many organizations have yet to realize the needs of the younger employees at work **Tube Investments Ltd.** are at the stage of planning the leisure activities of their young employees.

Recently the company opened their new 'Adventure Centre' at Pont-y-Pant in Wales where mixed parties will be introduced, summer and winter, to mountain activities and skills of living in the open. The scheme is the first of its kind to be started by the company and has its headquarters in a country mansion set in its own estate.

Since the early part of this year TI's

The New Zealand Minister of Finance 'tops out' the roof of their new government building



CUT LOST MAN-HOURS THIS WINTER

by using Lily paper cups

More than two thousand million man-hours were lost in industry last year through illness. Countless millions more will be lost this winter—and many of them will be *your* employees, affecting your production.

And the likelihood is that a high percentage of them will catch colds or flu by way of cross-infection from the crockery used on your tea trolleys and in your canteens.

Yet by changing to single-use LILY paper cups, plates and containers you can eliminate this source of infection and save expensive lost man-hours.

LILY paper service will save your direct catering costs, too. Companies already using paper service for their catering report that the elimination of washing-up, collection of used utensils, breakages, etc., effects substantial savings in their direct costs—in some cases up to 25 per cent.

Why not ask LILY to send a representative to make a survey of your catering arrangements? He will show you how paper service could be used to cut the costs of your industrial catering operation. Write today to:

LILY CUPS and CONTAINERS
(ENGLAND) LIMITED
FAZAKERLEY · LIVERPOOL 9
A member of the ® Robinson Group

IN PRACTICE

young employees have volunteered their week-end services in preparing the new headquarters. This included the laying of new drainage, the installation of central heating, and complete redecoration. Their enthusiasm for the scheme is tremendous and no doubt a lot of this will rub off to TI's benefit in other quarters.

★

ONE of the near impossible aims of a house journalist is to please the wide range of readership, from the company chairman to the newest member of the typists' pool. In the newspaper and periodical world the readership demands are invariably narrowed to similar interests.

In attempting to tackle the "near impossible" the editor of Brymay, the house magazine of **Bryant and May Ltd.,** sought the help of a company survey team, in order to find out the demands of his readers. The investigation revealed that by far the most popular items were those of personal, local, social, sporting and company interest. Low on the list of popularity were items of historical and educational interest, while 58 per cent of the readers appeared to have no dislikes at all. A sizeable minority wanted to see less of company news and appointments —a curious demand on a company house journal.

It would seem that the editor is almost back where he started. But the team claim a number of weaknesses as well as good suggestions have been brought to light. In complimenting an exteremely brave editorship one would observe that, while the impossible has been achieved—finding out what the reader wants—miracles often take a little longer.

★

THE main contribution which universities have to make to the lives of the young people who enter them is the opportunity to live together, share experiences and interests and learn from each other.

Stewarts and Lloyds, the Corby, Northants, steel firm, have laid a strong claim to the title of the Oxbridge of industry with the opening of a £150,000 residential hall for their student apprentices near their plant.

Each of the 65 self-contained study-bedrooms has a separate toilet section with shower. There are lounges, a central dining room, a sick-bay, a games room and a tennis court.

Young men, leaving school with G.C.E. at 'A' level work and live together. The massive turnover figures which occur among staff throughout industry in early career days, would be sure to fall if this company's example were followed in building up a team spirit from the start.

At £4 a week for inclusive board and all facilities the scheme is also tailored to fit a young man's pocket.

★

DESPITE praise from the International Labour Organization on the degree to which trades unions are accepted in this country, too many managements still have the same attitude as Victorian parents towards an erring son: "Never, never, mention that name in my house."

The **Pressed Steel Co.,** Oxford, holds another view. All new trainees, whether apprentices, technicians or graduates are to be given lessons on trade union agreements as part of their studies. Ignorance about the details of agreements is, the company believes, far more common a source of trouble than any deliberate ill-will.

On the other side, Pressed Steel intend to hold a series of courses for shop stewards to study labour relations during works hours. The lessons naturally will be delivered by neutral tutors from the universities.

Final proof of their intention to live at peace with their family was the company's decision to invite Bill Carron of the A.E.U. to open the £250,000 training centre in which these courses are to be held.

★

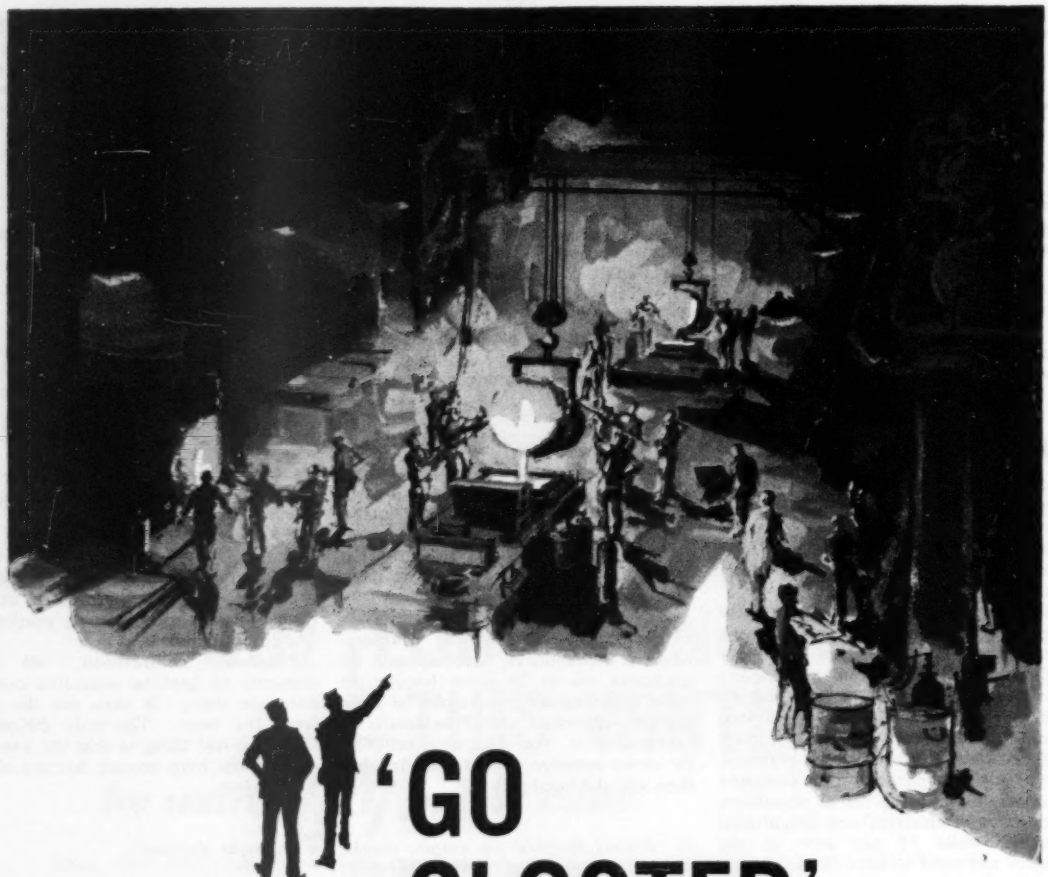
BUSINESS games used to mean a round of golf or an eating contest. In the **Shell International Petroleum Company** the words have a different meaning.

'Project Simplex' is adapted from the idea of 'war games' which are played at military staff training colleges. It is short for 'Simulation Planning by Executives'.

Sixteen people are divided into four teams or 'companies'. They then establish their own forms of organization and appoint appropriate executives to deal with finance, marketing and production.

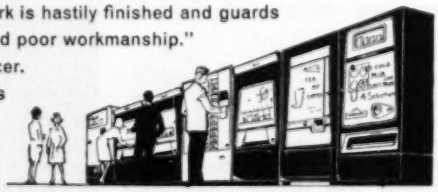
Pressure, competition, all the elements of genuine executive experience are there. It sorts out the men from the boys. The only difference from the real thing is that the exercise doesn't last long enough for any ulcers to develop.

In 'Project Simplex' an umpire checks for the right decisions. High finance is represented by chequers



'GO GLOSTER'
said the Safety Officer

More accidents—work standards lower. "Who's to blame?" "You can't blame the men, sir," answered the Safety Officer. "They try to keep to the safety rules." "Then what's the cause?" asked the Managing Director. "Trolley Service in the tea breaks. The men look out for the trolley—their minds are off the job—and when it comes there's a rush. Work is hastily finished and guards are sometimes left off machines. That's one cause of accidents and poor workmanship." "But the men must have their tea." "Agreed," said the Safety Officer. "And I say 'Go Gloster'. With Gloster automatic vending machines they can buy Tea, Sandwiches, Snacks, Soup, Cigarettes. Everything they need, just when they need it most. Gloster venders save machine time as well. Let's 'Go Gloster' I say!"



GLOSTER—*AUTOMATICALLY YOUR CHOICE*

For full details of the range of Gloster machines please write to: GLOSTER EQUIPMENT LTD., Gloucester. Tel: 67011

A MEMBER OF THE HAWKER SIDDELEY GROUP

Letters to the Editor

Sir,

Technicuss is surely only trying to sharpen up his favourite image of himself as the angry old bear of the personnel field when he so hotly decries wages surveys.

Granted that firm ground is hard to find round the bargaining tables of industry, reason bowing down before bluff, emotion and dogma. There are surely occasions when it is worthwhile to know—and to be able to quote—what is happening in the world outside the factory gates. Even Dr. Jacques felt fair theory depends on a man knowing how he fits into the picture. What about the League Table for instance? Like it or not it is bound to come up in discussion—except perhaps if your industry happens to be at the top. Bargaining is a subjective process; the context is paramount and wages surveys are part of it.

Besides, I am sure Technicuss has the years and experience (he cannot be an angry *young* man; only old and senior personnel men can afford to be bears) to know that a wages survey can be a most useful instrument in justifying the bargaining position he proposes to take. Chairmen need convincing as much as Union officials.

I hope he will resign himself to filling up forms as they pour in, knowing that however unreliable the ammunition provided, he may be glad of that little bit in reserve when his turn to bargain arrives again, as indeed it will.

J. S. MUNDY.

Benty Heath Lane,
Willaston,
Wirral.

Sir,

It was interesting to note in one of last month's letters that the writer found himself in the position of being unable to retain female clerks, owing to the degree of tedious work involved. And that he solved the problem by installing a small computer.

Well, I am at the third stage—which he might yet be confronted with—and that is the re-employment of female clerks with the computer ticking over in another dark corner of the building.

The writer stated that his original trouble was the employment of girls who were too bright for the job—mine were far from bright, yet the problem was the same. As an aside I might mention that he is in exceptional circumstances, we cannot get the bright ones even by accident.

The small computer was installed, and the female clerks dispersed to other departments while three girls were retained to operate the computer. It soon became apparent that the degree of intelligence needed to operate and feed this machine was less than that required for the original work of posting stock records, while the clinical atmosphere of our computer room did little to help in the way of relaxation.

In short, I was soon back with the same old problem, only this time it was difficult to even recruit the not so bright—any mention of electronic computer operation, with all the visions of flashing lights and push button systems being sufficient deterrents.

So, as I have mentioned, I am in the third stage of development. Again with the same persistent problem of losing staff owing to the tedious nature of the work, but at least I have recaptured the advantage of being able to recruit my golden asset, namely, the 'not so bright'.

D. S. DAVIES.

Beaconsfield,
Bucks.

Sir,

In your published article "Free Press in Industry?" the writer considers that there had been "widespread and forcible" criticism of the present editorial quality of house magazines. While this is undoubtedly true in a number of cases it surely cannot be a general appreciation. The author is not, I believe, referring to the technicalities of editorial presentation since he remarks on great improvement in this particular aspect. His chief complaint is directed at the actual contents.

Too little company information, and too much social gossip. It must be realized that the magazine is, first and foremost, produced for the benefit of the employee and not for the competitor. While the house journal presents first class publicity opportunities and can be subtly employed as a 'selling' tool it must never lose sight of the primary readership. And to the vast majority of this readership the news and picture of the production director winning the egg and spoon event arouses more interest than that of the sales director winning a new order. Extreme examples, admittedly, but basically what is required. We all know what we would like the customers to read but actual achieving this is a different matter entirely. In journalism, house magazine or newspaper, the reader dictates the policy. Change the policy, and you change your reader—if you're lucky.

As a P.R.O., doubling for house magazine editor, I fully support the author's plea for greater liaison between management and the staff of the journal, and the bid for greater editorial freedom. Yet I feel that this could only be of real benefit when dealing with matters other than social and sport news, i.e. really topical company news. So while endorsing this bid I would strongly suggest that the true objectives of a house journal are not lost sight of and maintain their primary importance, that is, a magazine designed for the pleasure of the company's employees.

J. ROUTLEDGE.

Whitchurch Crescent,
Edgware,
Middlesex.

THIS NEW supercraft CATALOGUE SHOULD BE IN YOUR HANDS!

From the style leaders in the industrial fashion field comes a new edition of the well-known Supercraft catalogue (itself a style leader too!) New designs, new materials, new colours, plus a number of popular styles retained, are all illustrated and described in the pages of the catalogue, reproduced in full colour.

OF PARTICULAR INTEREST TO INDUSTRIAL MANAGEMENT IS AN EXCLUSIVE BRAND NEW COTTON FABRIC, a most attractive material now available for the first time on a number of the women's garments. Patterns of this and all other materials in the Supercraft range are bound into the Catalogue.

Copies available without obligation to Personnel Managers, Welfare Officers, Purchasing Officers and executives in all industries.

Supercraft the operative word for Smartness

Send for your copy now: SUPERCRAFT (GARMENTS) LTD. 19 Stratford Rd., Shirley, Solihull, Warks.

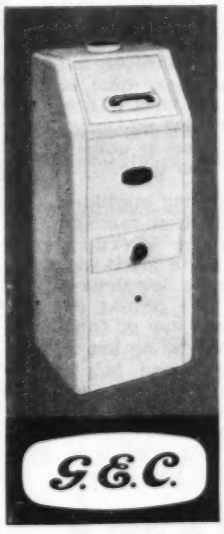
Tel: SHirley 3809. Factories at Oldham & Westhoughton

It's a fine building

. . . are the LADIES a credit to it?

When you have to put up a sign reading "Out of Order" on the Ladies toilet, the odds are the toilet's out of date. So many toilets in otherwise ultra-modern buildings still make do with 19th century disposal bins for sanitary towels! So many suffer from clogged pipes and choked drains! Showing the clean, modern way to dispose of sanitary waste is the completely automatic SANFIRE AUTOMINOR. It works at the lift of a handle. And it's built for long life with a corrosion-resistant solid rod element, operating at low voltage. Ask for a demonstration of this good-looking slim-line model, so easy to mount to wall or alcove, so easy to connect to common flues

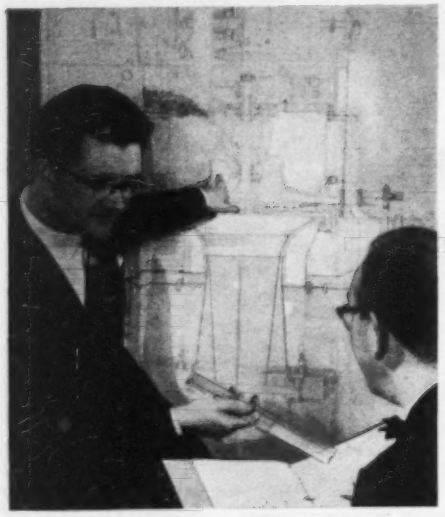
Sanfire Autominor £33



Modern toilets need SANFIRE AUTOMINOR the completely automatic sanitary incinerator with the long-life element.

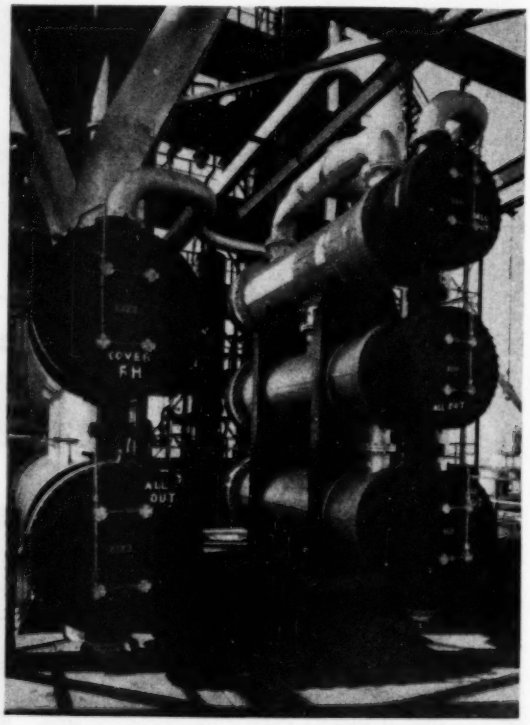
The Sanfire Autominor takes care of a toilet with up to 50 users. For a toilet with up to 150 users, ask for the SANFIRE MAJOR.

For more information write to:
THE GENERAL ELECTRIC CO. LTD
LIGHTING & HEATING GROUP
Magnet House Kingsway London WC2



Heat Exchangers —a cool answer to a hot problem

(and vice versa)



ANY WAY OF reducing production overheads and increasing output, by using energy lost in manufacturing processes is looked upon with considerable favour, by the Tycoons of heavy industry. Heat exchangers have this virtue, they extract heat from liquids and transfer it (usually in the form of steam), where it can do most good.

Quite by chance I bumped into a friend who is in this line of business. I say quite by chance, because last time I was in his area—he was too busy to see me—he was up to the eyebrows in a massive production drive, to produce exchangers for a big oil refinery in the States. He appeared to have more time to himself on this occasion, so I asked whether business was as good as usual. "Better than ever," he said. "If it keeps up our sales figures will be up one-third on last year's." I then remarked that he had more time to himself these days. "Yes," he said, "I thought I knew everything there was to know about heat exchange. Well, I was put in my place by someone in quite a different line of business. Take a look over there."

He pointed to a couple of drink vending machines. There was a hot tea machine and a soft drink machine sited unobtrusively in the corner of the workshop. "That's heat exchange for you, applied to the individual. A man comes in first thing in the morning—or perhaps he's on night shift—he's cold and if he's coming off shift he's undoubtedly tired—so he has a cup of fresh hot tea from the Stills vending machine—he no longer feels tired, he's warm—ready for work and he's a happier more efficient workman. It's the same with Stills cold drink machine, these 'shops' aren't exactly 'air conditioned' you know. The man's tired—thirsty —morale wilting a bit—he has an ice cold drink from the Stills machine—heat exchange—and you have a cooler happier worker.

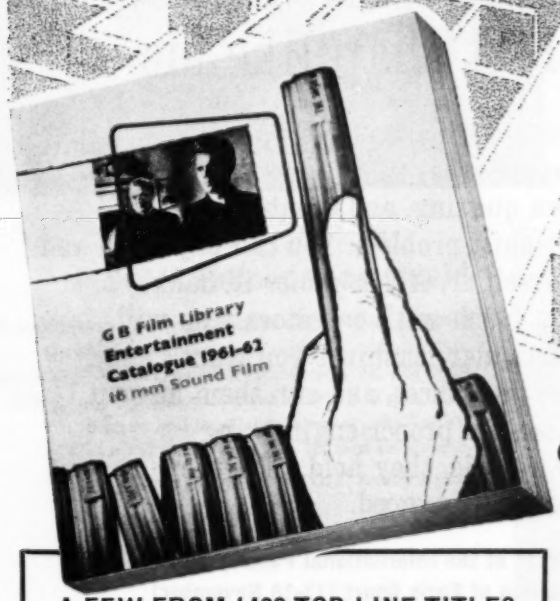
"It cuts out that nonsense with the tea trolley, no queueing, no brewing, a man goes for a drink when he feels like it—and I've found production figures have been going up ever since we installed these machines. Stills vending machines are no trouble to service—they serve hot or cold drinks at the drop of a coin—24 hours a day."

Write for our illustrated catalogue.
W. M. Still & Sons Limited,
29/31 Greville Street, London,
E.C.1. HOLborn 3744

By Appointment to Her Majesty The Queen Manufacturers of Kitchen Equipment

GO STRAIGHT TO THE BEST

in film entertainment...



...get this new 144 page G. B. FILM HIRE CATALOGUE!

A FEW FROM 1400 TOP-LINE TITLES

The Grass is Greener • Doctor in Love
Carry on Regardless • The Savage Innocents
The League of Gentlemen • Midnight Lace
The Singer not the Song • Richard III
Portrait in Black • Dentist in the Chair
The Lady and the Tramp • The Bolshoi Ballet
Walt Disney Cartoons • I'm All Right Jack
Conquest of Everest • Conspiracy of Hearts
Edgar Wallace Thrillers • Genevieve
Treasure Island • The Battle of the Sexes
Carry on Constable • Two-Way Stretch
The Vanishing Prairie • Above us the Waves
The Naked Truth • Reach for the Sky
The Benny Goodman Story

It needn't take time or effort to find the best in film entertainment — and, for that matter, the biggest selection of 16mm films of any film library in Europe. They're all in this new 1961/62 edition of the G.B. Film Hire Catalogue — 144 pages of hit releases and top-line feature films and shorts, many of them in colour. Just a few are listed here. But get a copy of the Catalogue for yourself by sending off this coupon with 2/6d. today.

G.B. Film Library

Props: RANK PRECISION INDUSTRIES LTD
1 Aintree Road, Perivale, Greenford, Middlesex.
Telephone PERivale 6666

to **G. B. FILM LIBRARY**
1 Aintree Road, Perivale, Greenford, Middlesex.

Please send us a copy of your 1961-62 Catalogue, for which 2/6d. is enclosed. We are especially interested in films for the following :

☐ HOSPITALS ☐ SCHOOLS ☐ CLUBS
☐ INDUSTRY ☐ PRIVATE SHOWS
(tick where applicable)

NAME _____

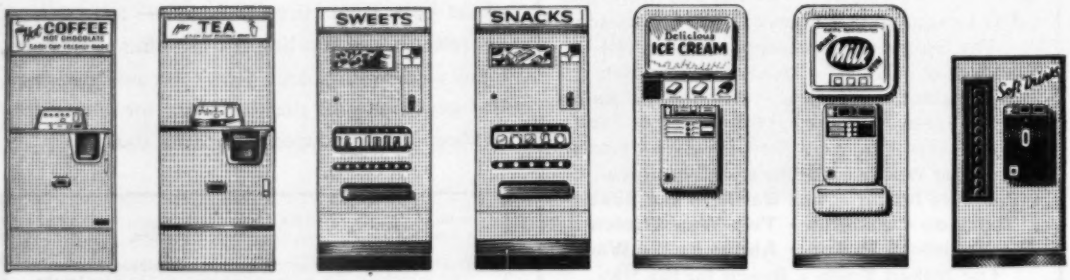
ADDRESS _____

_____ PM.7

It pays to be a benevolent chap like me

My Vendo machines don't just make my employees happy—they save losses in production time, cut down queuing, and eliminate the canteen night-shift problem. You can buy them and run them yourself or, if you prefer it, Sankey's can put you in touch with operators who will install the particular machines you want in your works and offices, and run them for you. Vendo machines are prover engineering jobs: they're reliable, they hold a lot, they look good and they *are* good.

See the Vendo range at the International Factory Equipment Exhibition at Earls Court (13-18 November) —STANDS B18 & B20.

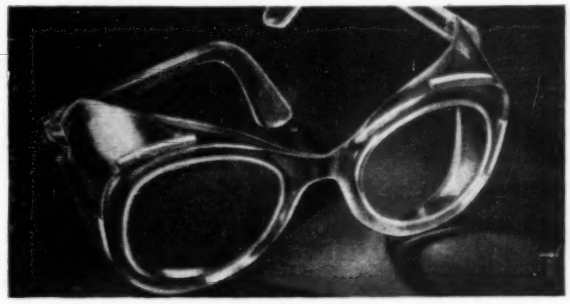


Vendo BY SANKEY

Joseph Sankey & Sons Ltd., Vendo Division.
Head Office Sales: GKN House, 22 Kingsway, London W.C.2.
Tel: Chancery 1616.
Midlands Office: Hadley Castle Works, Wellington, Shropshire.
Tel: Wellington 4321.
Manchester Office: 23 Quay Street, Manchester 3. Tel: Blackfriars 0718/9.
Scottish Office: 19 North Claremont Street, Glasgow C.3.
Tel: Douglas 8645.

V 8/14

PERSONNEL "PANORAMA" Registered Safety Equipment PROTECTION



T.G.S.I. Toughened glass spectacle

A light-weight spectacle providing complete eye protection with the minimum of discomfort. Toughened glass lenses with very high impact resistance against flying particles. Translucent brown plastic frame with built-in side shields. Three point ventilation, scientifically designed to eliminate misting. Adjustable side arms enable model to fit all head sizes.

P.V.C. Skullcap face shield

A comfortable lightweight face shield specially designed for chemical workers and affording complete face and head protection against chemical splashes. The black P.V.C. cap is fitted with an adjustable J.57 polythene harness and fixed acetate screen, ·050″ thick. Screens available in 6″, 8″, 10″ and 12″ depths.

Fitted with CELASTOID acetate screen.

Fullguard

An all-round brim fibreglass helmet fitted with PP.25 adjustable lace-in leather harness and C407 webbing chinstrap. Alternatively fitted with PP.26 adjustable clip-on Terylene and leathercloth harness and webbing chinstrap.

Can be supplied in a range of pigmented colours.

Licensed to carry the Kite Mark.
B.S.I. LICENCE NO. 3171

"PANORAMA" Registered Safety Equipment

PYRENE-PANORAMA LIMITED
Windmill Road, Brentford, Middx.
Tel: ISLeworth 6123

SPT-4

his safety depends on YOU

You are legally and morally responsible for providing safeguards for the men who do dangerous work in your factory. Your own best interests, too, make it essential that you should protect them . . . especially their eyes.

Eyes exposed to danger need safety visors, goggles, and machine guards made of 'Celastoid.' 'Celastoid' is very tough—does not shatter, crack, or splinter. It is brilliantly clear, too, and gives your worker the perfect vision needed to do a job well. 'Celastoid' is basic equipment for the morale and efficiency of your workers, an essential part of your safety planning.

Members of the Industrial Safety (Personal Equipment) Manufacturers Association

protects your man

preserves his skill

Celastoid

TRADE MARK

ACETATE SHEET

'Celastoid' is supplied by us to goggle and visor manufacturers.

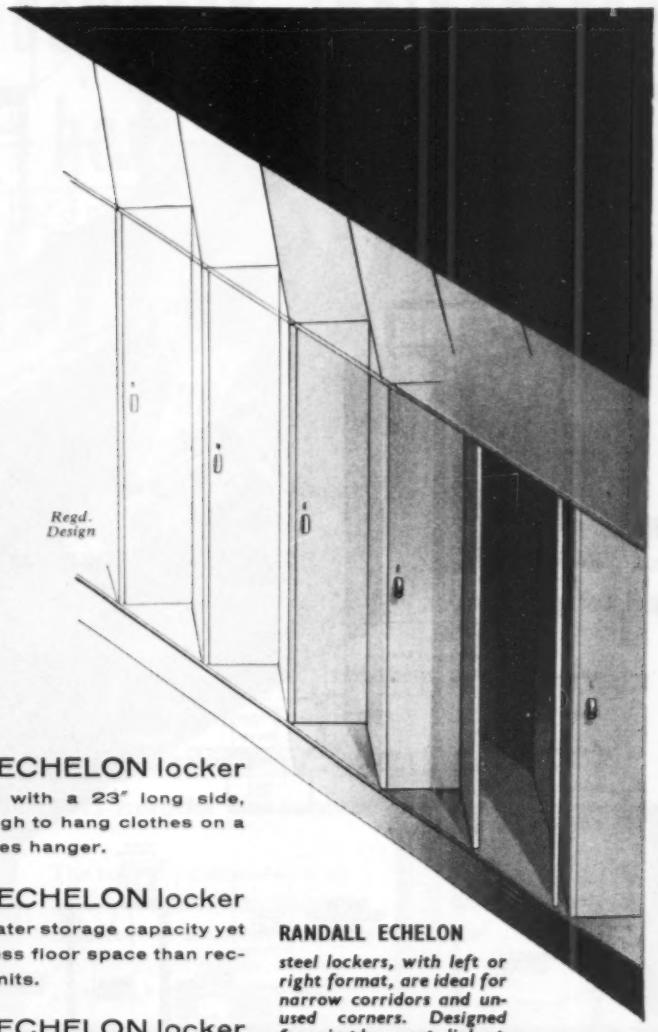
Can our Technical Advisory Service help you regarding the uses of 'Celastoid' for safety problems?

Full information from

Plastics Division
British Celanese Limited

Celanese House, Hanover Square, London W.1.
Telephone: MAYfair 8000

This is the angle on LOCKERS from RANDALLS



Regd. Design

Unique because the ECHELON locker is angled, with a 23" long side, deep enough to hang clothes on a wide clothes hanger.

Unique because the ECHELON locker offers greater storage capacity yet requires less floor space than rectangular units.

Unique because the ECHELON locker doors open within the angled locker depth. Doors do not swing out into gangways or against personnel.

RANDALL ECHELON

steel lockers, with left or right format, are ideal for narrow corridors and unused corners. Designed for simple, neat link-up to heating, ventilating systems.

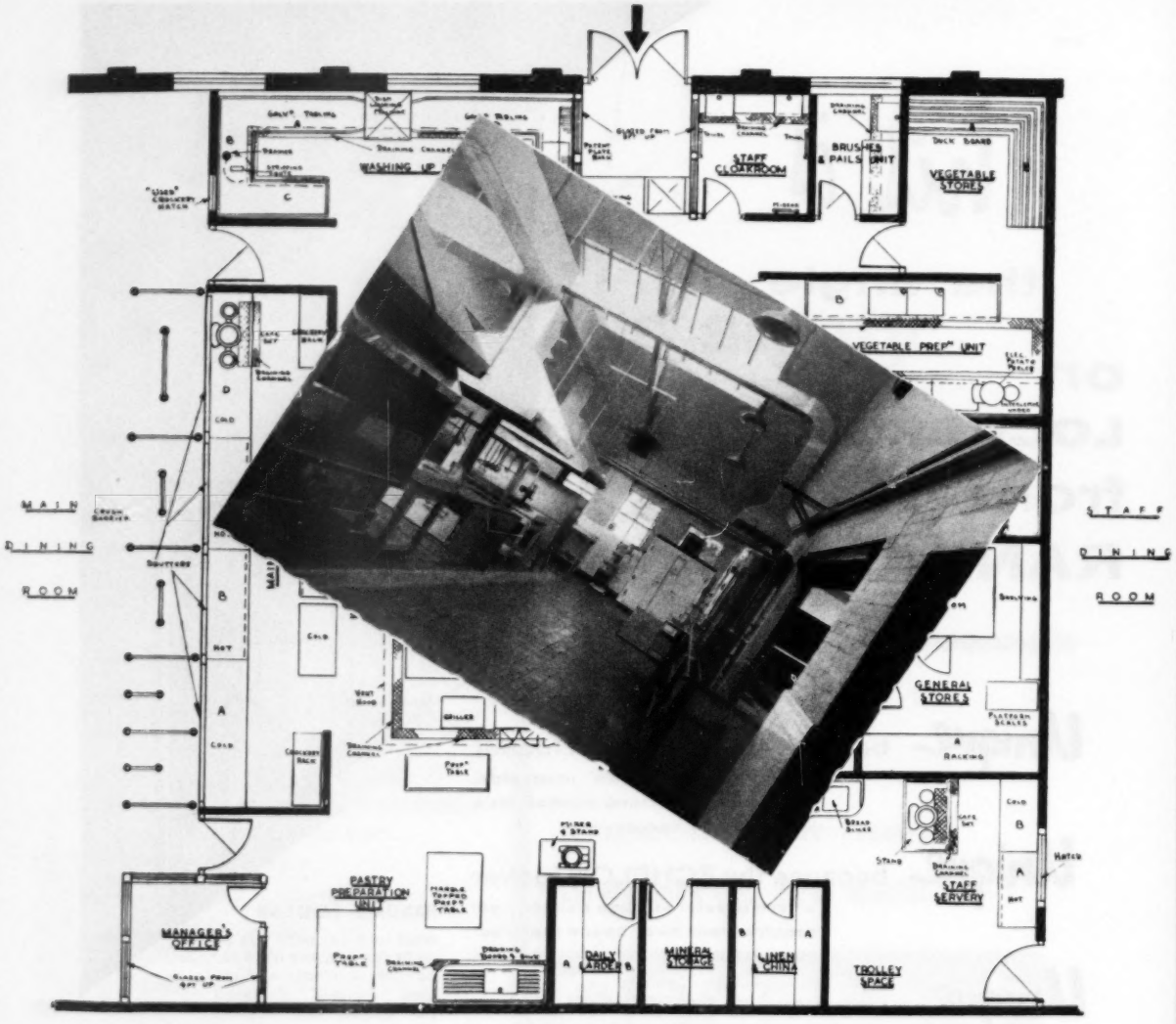
THE RANDALL 1851 ORGANISATION

RANDALLS OF PADDINGTON

WRITE OR TELEPHONE FOR ILLUSTRATED, DETAILED LITERATURE NOW!

JAMES H. RANDALL & SON LIMITED

Dept. PM/1, Paddington Green Works, London, W.2 AMBassador 1661



For Planning by Specialists—consult

JAMES FARQUHARSON & SONS LTD.

PARK PARADE - HARLESDEN

LONDON, N.W.10

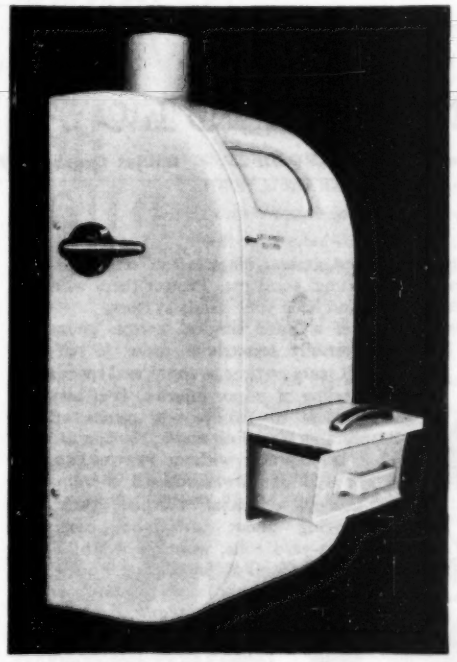
Phone : **ELGar 4080**

ONLY Wandsworth Incinerators have the

BUILT-IN FAN

THE BUNNIE INCINERATOR

- Automatic operation
- Big capacity—100-150 staff
- Surface or flush wall mounting (Pedestal model also available—details on request)
- Residual ash deposited in ash drawer for later disposal
- Outer case always remains cool
- Consumption 800 watts
- Available for A.C. or D.C.
- 12 months' guarantee.



Standard Surface-mounted ***BUNNIE***

The built-in extractor fan is an exclusive feature of the 'Bunnie' incinerator: it *completely* eliminates unpleasant odours, because smoke and fumes *cannot* "feed back" . . . even if several machines use a common flue, when a simple relay system gives *extra* protection.

Technical advisory service available—write or 'phone for new Incinerator Booklet.

Flush-mounted ***BUNNIE***

Wandsworth

THE WANDSWORTH ELECTRICAL MANUFACTURING CO. LTD. (DEPT. PMM35), ALBERT DRIVE, SHEERWATER, WOKING, SURREY. Telephone: Woking 3506.

You never see a prima donna pair of **Bennett's** gloves —

but **opera**tives sing their praises!

A wide range of quality industrial Gloves, Mitts, Aprons and Clothing in leather, rubber, asbestos, plastic and various fabric materials are made and stocked for all trades and processes. Technical Representatives are available for consultation in all parts of the British Isles at short notice.

BENNETT'S

cvs-17(D)

INDUSTRIAL GLOVES

H. G. BENNETT & CO. (Gloves) LTD. · Industrial Glove Specialists · LIVERPOOL 23 · GREat Crosby 3996/7

All hands 'on deck!'

Beware of cuts and grazes! Neglect can easily turn them into 'lost time' accidents. Protect them with PRESTOBAND—and keep your hands at work.

PRESTOBAND is a pure surgical cotton gauze bandage, specially treated to make it self-adhesive. It takes no time to apply, and speeds up the healing of minor injuries. It is easy and painless to remove—it comes off cleanly and leaves no mark. No first aid box is complete without PRESTOBAND. For bulk users, PRESTOBAND is supplied in a special 'Hospital Pack', saving about 40% on costs: 12-yard rolls, in three widths—½", 1" and 2". Samples on request. *From your usual supplier, or from the manufacturers, Vernon & Co. Ltd., Preston, Lancs. Tel: Preston Priory 83293*

thanks to **PRESTOBAND**

THE ANTISEPTIC SELF-ADHESIVE BANDAGE

Sticks to itself, but NOT to the skin!

DOES THIS MAN WORK FOR YOU?

Perhaps you are in authority over men with 'dirty' jobs — whose grimy hands don't respond to mere soap and water. They will appreciate your wisdom in specifying WIMZO non-abrasive antiseptic jellied cleanser for the quick removal of paint, grease, tar, wax, rubber compounds, dyes and *all* ingrained dirt from hands. WIMZO is saving time and money everywhere.

Used by the Coal, Gas and Electricity Boards, The Admiralty, Richard Thomas and Baldwin, etc.

Wimzo

cleans hands *in a jiffy!*

* Awarded the Certificate of the Royal Institute of Public Health & Hygiene

IN BULK OR IN HANDY TUBES

For

BULK PRICES

and

FREE SAMPLES *write to:* **WIMSOL LTD. KEIGHLEY, YORKSHIRE**

Full fifteen stone in his boots and bowler, he would descend with due decorum to the canteen, where, over his steaming mug, he would wax eloquent over the great march of progress. "Take safety," he would say, blowing gustily at his tea, "these IRVIN Safety Belts are marvellous— I'd even trust my old woman in one and she's eighteen stone."

Be on the safe side, write to IRVIN today and find out which type of Safety Harness will suite your particular requirements.

IRVIN SAFETY HARNESS

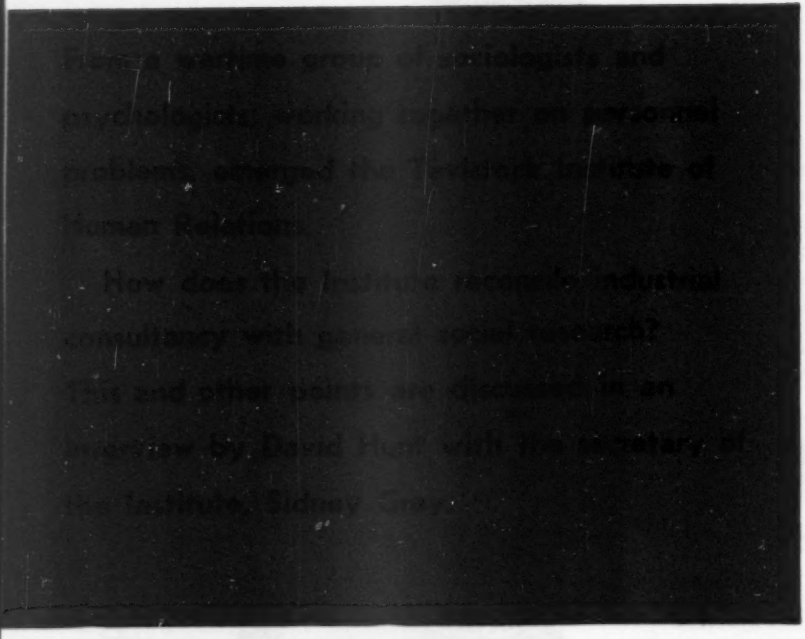
AIR CHUTES IRVIN REGD. TRADE MARK 672600

APPROVED TO BRITISH STANDARD 931 1957

WRITE TO DEPT. PM

IRVING AIR CHUTE OF GREAT BRITAIN LTD., LETCHWORTH, HERTS.

Industry's Medicine Chest



WAR has a way of speeding-up change and allowing new ideas to break through. All resources were called upon in 1939-1945 to solve the personnel and organizational problems of the mobilized forces. For the first time, specialists in different fields, psychologists, sociologists, economists, found themselves working together. They pooled their different experience and knowledge, they were stimulated by each other, their horizons expanded. Within the group there developed a special kind of social science, an approach in which all the aspects and implications of human behaviour were integrated.

When the Rockefeller Foundation suggested to the group that they should continue the collaboration to tackle the problems of a country at peace, they welcomed the idea.

The main difficulty was to find a home. 'Social studies' in 1946 was in the position of psychiatry a quarter of a century earlier. Neither Oxford nor Cambridge Universities were eager to give it much recognition. It seemed natural that the Tavistock Clinic, founded under similar circumstances by a group of psychologists and psychiatrists at the end of the First World War, should be the eventual destination of the group.

Since 1946 a great deal has happened to the Tavistock. The original Clinic has come under the ægis of the National Health Service, some of the original group have left, but the Institute goes from strength to strength.

Its activities embrace the problems of childhood, of adolescence, of the family. Long years of collaboration with such companies as Unilever illustrate its success in industry. Fundamental research by the Institute into socio-technical systems and group working is opening up a new world for personnel thinking.

With some unanswered questions on my mind, I interviewed the Secretary of the Institute, at his office in Devonshire Street.

★

I believe that among the bodies who give advice to industry, you are unique in having a close relationship with so many other activities; I mean the psychological work of the Clinic, sociological research into most forms of human relationship, etc. What benefits do you derive from this?

If there is any uniqueness about our Institute, it probably resides in the fact that we all believe that there are certain common themes in every

human endeavour or problem, whether concerned with the individual, the family, the community or organisations. The contribution to discovering similarities and differences can be made by all aspects of the human sciences and we therefore try not to segregate them in our own minds. We are able to use experiences in one area very often to help us in dealing with problems in another.

Would you like to give me an example?

With Leicester University we have been running for some time Study Conferences where we have attempted to bring together men and women in positions of leadership in various fields, including the professions, industry and commerce, to study decision-making, authority and relationships in and between groups.

Actual Experience

The lessons provided at the Conference can be regarded as complementary to the more conventional forms of management and professional training. Learning derives from the examination of actual experience of group life. Work takes place mainly in small groups, with the assistance of staff.

Is the relationship between clinical psychology and the sort of psychology which is useful in industry anything more than an analogy?

I think it is, because, after all, in both cases you are dealing with human beings, and both must be concerned with general principles underlying human behaviour. Having a clinical base is, to us, very important. If we were cut off from that we feel our skills as consultants would become attenuated.

But what is the aim of psychology in industry? Is it simply to understand or is it to do something to the industrial situation?

I think this is terribly important because it is impossible for us to say other than that we want to help and that involves initiating change of some kind. Even if it were possible to do it, which I doubt, we should not go into an organization only to collect a lot of very interesting information and publish it as scientific papers. We should like to feel that the experience of working with us in the organization is something from which the organization itself has benefited.

I think the key-point is really the effectiveness of the organisational objectives in line with the health of the enterprise. Our body of knowledge has directed attention to the deeper and frequently unrecognized forces in organizational life and inter-personal relations, and the way these forces impinge on individuals and groups, with far-reaching effects on their decisions and actions.

These forces and the ways in which they operate cannot be demonstrated as easily as technical processes. The social scientist's problem is that of communicating an understanding of this body of knowledge and ways of applying it, so that it can be fruitfully used by others in organizations and professions. Special conditions are necessary for this knowledge to be gained through immediate experience and not merely through intellectual discussion.

In recent years, however, joint experience of working on concrete issues between those concerned with organizational and professional objectives and those concerned with the social sciences has contributed much to the development of ways in which this knowledge can be shared, tested and applied. Such a two-way process is the basis of the work of the Institute.

This approach which you advocate —does it take longer than ordinary consultancy?

I think it almost certainly does, simply because we never expect to make profound changes in people's attitudes and understanding of what is going on around them in a short time. For example, one may state a truth and they may agree with it; but they may continue to act as if they have never heard of it.

The question of how long it takes to give effective help to an organization is very difficult. It depends very much on the nature of the problem, how deeply it is entrenched, and how willing people are to do something about it.

In practical terms, what kind of changes have you initiated?

Well, I probably couldn't do better than quote a book which was published early last month, called "The Organization from Within". It shows how projects of varying lengths, one as short as six weeks in a hospital, and one in an industrial concern extending over several years, all resulted in some changes which were recognized by the people concerned as being beneficial.

What do the changes usually involve? Are they changes in the organization?

It really depends on the nature of the activity upon which we are engaged. What we endeavour to ensure is that such innovations as are made by the organizations are perceived in the context of the primary objectives and not put into effect piecemeal.

You have spoken of problems you handle in industry. What sort of problems does the Institute have to face in its own life?

We believe that, given a common approach, we can best deal with problems by bringing to bear on them a variety of scientific knowledge and professional skills. That is why we use within the same group people in all the social and some medical sciences.

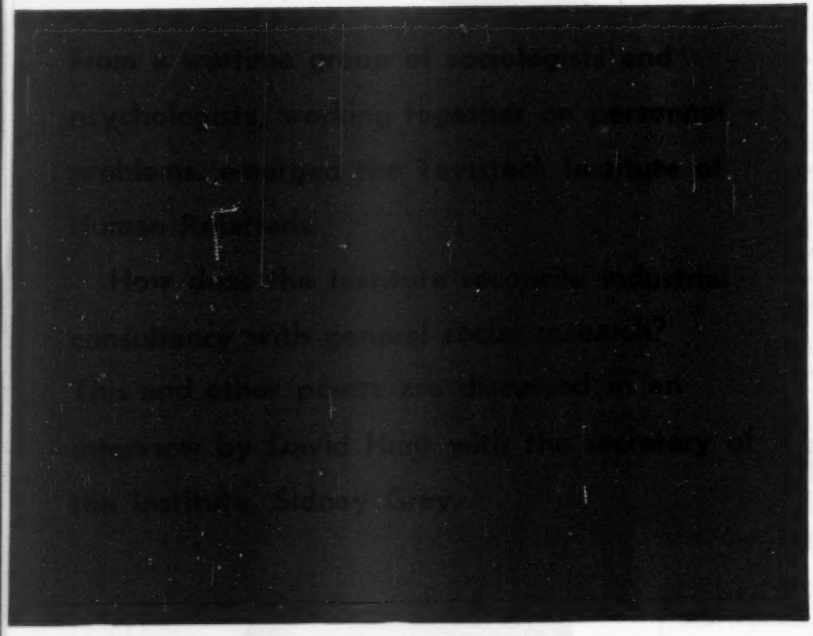
Staff Problems

All have a contribution to make, but we believe that their contributions are enriched by a common philosophy. The kind of people that can operate in our combination of professional and academic roles require a rather special kind of training and experience, and this, of course, presents immense problems from the point of view of developing and increasing staff.

Finally, where is the Institute going in the next few years?

Well, if I may give a personal reaction to that, then I woul say that in the next 10 years we shall certainly continue our scientific practice. I also believe that unless during that period we are able simultaneously to nourish and develop the research and training side of our work there would be little future for the Institute as such, or for the kind of collaboration we can offer to society.

Industry's Medicine Chest



WAR has a way of speeding-up change and allowing new ideas to break through. All resources were called upon in 1939-1945 to solve the personnel and organizational problems of the mobilized forces. For the first time, specialists in different fields, psychologists, sociologists, economists, found themselves working together. They pooled their different experience and knowledge, they were stimulated by each other, their horizons expanded. Within the group there developed a special kind of social science, an approach in which all the aspects and implications of human behaviour were integrated.

When the Rockefeller Foundation suggested to the group that they should continue the collaboration to tackle the problems of a country at peace, they welcomed the idea.

The main difficulty was to find a home. 'Social studies' in 1946 was in the position of psychiatry a quarter of a century earlier. Neither Oxford nor Cambridge Universities were eager to give it much recognition. It seemed natural that the Tavistock Clinic, founded under similar circumstances by a group of psychologists and psychiatrists at the end of the First World War, should be the eventual destination of the group.

Since 1946 a great deal has happened to the Tavistock. The original Clinic has come under the ægis of the National Health Service, some of the original group have left, but the Institute goes from strength to strength.

Its activities embrace the problems of childhood, of adolescence, of the family. Long years of collaboration with such companies as Unilever illustrate its success in industry. Fundamental research by the Institute into socio-technical systems and group working is opening up a new world for personnel thinking.

With some unanswered questions on my mind, I interviewed the Secretary of the Institute, at his office in Devonshire Street.

★

I believe that among the bodies who give advice to industry, you are unique in having a close relationship with so many other activities; I mean the psychological work of the Clinic, sociological research into most forms of human relationship, etc. What benefits do you derive from this?

If there is any uniqueness about our Institute, it probably resides in the fact that we all believe that there are certain common themes in every

human endeavour or problem. whether concerned with the individual, the family, the community or organisations. The contribution to discovering similarities and differences can be made by all aspects of the human sciences and we therefore try not to segregate them in our own minds. We are able to use experiences in one area very often to help us in dealing with problems in another.

Would you like to give me an example?

With Leicester University we have been running for some time Study Conferences where we have attempted to bring together men and women in positions of leadership in various fields, including the professions, industry and commerce, to study decision-making, authority and relationships in and between groups.

Actual Experience

The lessons provided at the Conference can be regarded as complementary to the more conventional forms of management and professional training. Learning derives from the examination of actual experience of group life. Work takes place mainly in small groups, with the assistance of staff.

Is the relationship between clinical psychology and the sort of psychology which is useful in industry anything more than an analogy?

I think it is, because, after all, in both cases you are dealing with human beings, and both must be concerned with general principles underlying human behaviour. Having a clinical base is, to us, very important. If we were cut off from that we feel our skills as consultants would become attenuated.

But what is the aim of psychology in industry? Is it simply to understand or is it to do something to the industrial situation?

I think this is terribly important because it is impossible for us to say other than that we want to help and that involves initiating change of some kind. Even if it were possible to do it, which I doubt, we should not go into an organization only to collect a lot of very interesting information and publish it as scientific papers. We should like to feel that the experience of working with us in the organization is something from which the organization itself has benefited.

I think the key-point is really the effectiveness of the organisational objectives in line with the health of the enterprise. Our body of knowledge has directed attention to the deeper and frequently unrecognized forces in organizational life and inter-personal relations, and the way these forces impinge on individuals and groups, with far-reaching effects on their decisions and actions.

These forces and the ways in which they operate cannot be demonstrated as easily as technical processes. The social scientist's problem is that of communicating an understanding of this body of knowledge and ways of applying it, so that it can be fruitfully used by others in organizations and professions. Special conditions are necessary for this knowledge to be gained through immediate experience and not merely through intellectual discussion.

In recent years, however, joint experience of working on concrete issues between those concerned with organizational and professional objectives and those concerned with the social sciences has contributed much to the development of ways in which this knowledge can be shared, tested and applied. Such a two-way process is the basis of the work of the Institute.

This approach which you advocate —does it take longer than ordinary consultancy?

I think it almost certainly does, simply because we never expect to make profound changes in people's attitudes and understanding of what is going on around them in a short time. For example, one may state a truth and they may agree with it; but they may continue to act as if they have never heard of it.

The question of how long it takes to give effective help to an organization is very difficult. It depends very much on the nature of the problem, how deeply it is entrenched, and how willing people are to do something about it.

In practical terms, what kind of changes have you initiated?

Well, I probably couldn't do better than quote a book which was published early last month, called "The Organization from Within". It shows how projects of varying lengths, one as short as six weeks in a hospital, and one in an industrial concern extending over several years, all resulted in some changes which were recognized by the people concerned as being beneficial.

What do the changes usually involve? Are they changes in the organization?

It really depends on the nature of the activity upon which we are engaged. What we endeavour to ensure is that such innovations as are made by the organizations are perceived in the context of the primary objectives and not put into effect piecemeal.

You have spoken of problems you handle in industry. What sort of problems does the Institute have to face in its own life?

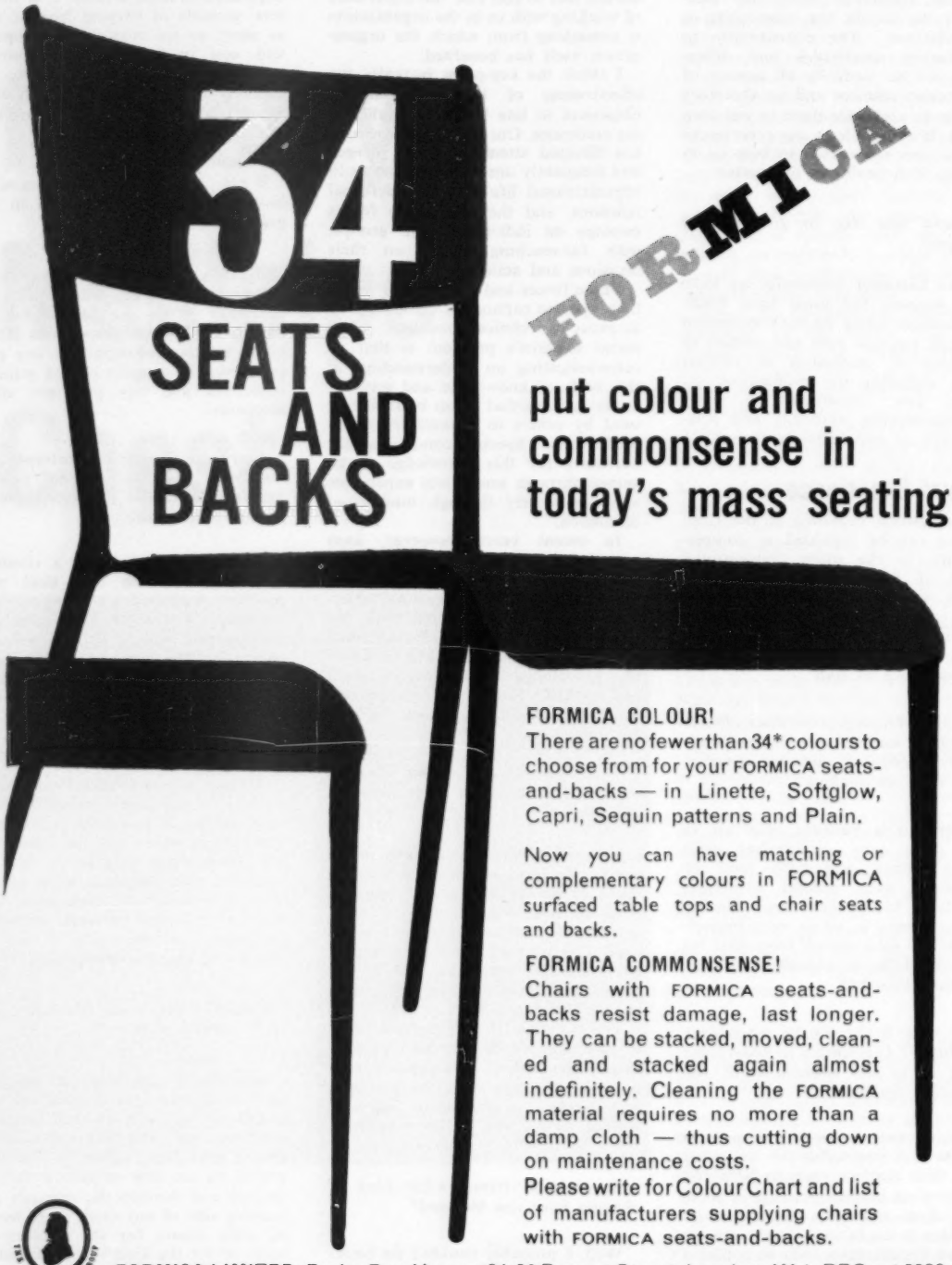
We believe that, given a common approach, we can best deal with problems by bringing to bear on them a variety of scientific knowledge and professional skills. That is why we use within the same group people in all the social and some medical sciences.

Staff Problems

All have a contribution to make, but we believe that their contributions are enriched by a common philosophy. The kind of people that can operate in our combination of professional and academic roles require a rather special kind of training and experience, and this, of course, presents immense problems from the point of view of developing and increasing staff.

Finally, where is the Institute going in the next few years?

Well, if I may give a personal reaction to that, then I woul say that in the next 10 years we shall certainly continue our scientific practice. I also believe that unless during that period we are able simultaneously to nourish and develop the research and training side of our work there would be little future for the Institute as such, or for the kind of collaboration we can offer to society.



FORMICA

put colour and commonsense in today's mass seating

FORMICA COLOUR!
There are no fewer than 34* colours to choose from for your FORMICA seats-and-backs — in Linette, Softglow, Capri, Sequin patterns and Plain.

Now you can have matching or complementary colours in FORMICA surfaced table tops and chair seats and backs.

FORMICA COMMONSENSE!
Chairs with FORMICA seats-and-backs resist damage, last longer. They can be stacked, moved, cleaned and stacked again almost indefinitely. Cleaning the FORMICA material requires no more than a damp cloth — thus cutting down on maintenance costs.
Please write for Colour Chart and list of manufacturers supplying chairs with FORMICA seats-and-backs.

FORMICA LIMITED, De La Rue House, 84-86 Regent Street, London, W.1. REGent 8020

this human business

by Technicuss

They Want Everything —Except Hard Work

WHY do I get so riled these days when I'm interviewing management trainees? Is the attitude of the young men and women (yes, we do have women management trainees) of today so different. I've long ago cured myself of the old man's evil notion that unless they come up the hard way—or commiserate with me if I mention how different it was once—they are not really top grade stuff. Like most large companies who are expanding rapidly in all directions at once we are engaged on a ceaseless hunt for more and more talent to be trained in order to keep the management pyramid in proper trim. Young people throng our passages on an equally ceaseless hunt for that industrial Eldorado which will provide all things except hard work. All right! I'm being mean. But I feel mean!

Certainly I know that young men, especially graduates, are in a shopper's paradise. And I don't mind in the least the youngster who breezes into my office in answer to an ad. and says in effect, "Come on now, Dad. Show me what you've got and I'll tell you if I'm interested". At least this self-opinionated youngster has some enterprise, audacity and energy.

If he asks about the company's balance sheet I know where I am and I tell him to spend his own bob at Somerset House and read it in his time not mine! I am positively overjoyed if he quizzes me on our training programmes and casts unsubtle aspersions on our motives and policies. Odious comparisons with other big companies' training schemes and salary scales assure me that I've got a likely fish on the hook which it will give me great joy to land. He can't even throw me now by asking outright how much I'm paid and how long it took me to get to my present level. That's all healthy stuff. Perish the thought that any interviewee should refrain from asking, "How soon do I get a company car"? The ones with wide-awake fathers already in business have a few questions about travelling expenses though few give a hoot about pensions.

I don't mind all this mercenary conversation but it does irritate me when I am faced with a young man whose only concern is to dig out an assurance that by the time he is 30 he will be earning such and such a figure. Mind you, this is very different from the young man who wants an assurance that there will be the *opportunity* for him to earn so much by 30. Needless to say, not even Solomon could give anyone a categoric assurance in industry. Indeed the savour would go out of the job for some of us if we knew that things were so pre-ordained that our hire purchase commitments would always be met. We hope they will but one never knows. And the challenge of keeping our own square in the organization filled is at once a threat and a stimulant.

I want no truck with trainees who do not display something of the same attitude, though I know we all feel sometimes that we face the choice of taking the chap with the brains and training who has the featherbed approach and the less gifted entrepreneur who will keep daring to do what the more brilliant chaps will say is impossible or unwise. I'm all for a bit of dash in management trainees myself and it seems to me that there are far too many who want to play it safe. By the law of averages we shouldn't have more than our fair share of these types appearing who want only to find a big enough organization to hide in. So there must be a lot of them about.

Maybe we're unlucky or our application form isn't designed to reveal it. Perhaps we are of a size that makes people think we're big enough to have a few cracks to crawl into and be forgotten. Whatever it is I'm determined to play the ruthless old-timer and insist on a display of spirit among young people who present themselves for selection.

Don't get the idea that all of industry is just waiting to lay down the red carpet for the bright boy and girl. In spite of the annual wooing that goes on at universities by recruitment teams you cannot avoid the fact that it takes more than academic prowess to get the gold out of industry into your front teeth. The real nuggets go to the bold and resourceful who by pursuing their own high level realistic goals propel industry along with them, leaving the dross to the man who wants to know what he'll be earning when he's 30.

"Away you welfare minded witlets. Go elsewhere for a soft number. Come in, you with the impudent grin. You won't get my job tomorrow, but you'll certainly get it some day".

Visual Aids

by O. T. Curtis

The Greeks Had a Word For it

Dr. Fritz Fischer, inventor of Eidophor

CLOSED-CIRCUIT television is no novelty nowadays, and its applications to education are increasing. Nevertheless the recent annual meeting of the British Association for the Advancement of Science, at Norwich, provided the occasion for a most convincing demonstration of a newly developed Swiss system whose effect may well be far-reaching.

The British Association attracts very large audiences and its Norwich meeting, with over 3,600 members present, was no exception. It is interesting to note that its first meeting in 1868 attracted about 2,000, and its second 1935 Norwich meeting some 2,400. The large attendance at this year's meeting required overflow arrangements for the audience at the inaugural meeting and presidential address. Over 1,000 were therefore accommodated in an open courtyard and before a full-sized cinema screen were able to watch, in much more detail than would have been possible for them in St. Andrews Hall itself, the whole proceedings in excellent colour.

Providing full mobility for the system is this European Eidophor unit, seen here in Paris. It was a similar unit which attended the Norwich meeting recently.

The system used was 'Eidophor', Greek word for 'image bearer', by which a large screen colour system can effectively reproduce on a screen 12 ft. by 16 ft.—and in black and white can achieve dimensions of 24 ft. by 32 ft.

Basically, this is how the system works. Electrical impulses from the television camera control an electron beam. This beam bombards, and in the process modifies, the surface of a film of oil on a concave mirror. A powerful light source is concentrated upon the mirror, passes light through the 'wrinkles' in the oil film induced by the electron beam, and reflected back from the mirror the light is projected through a special grating on to the screen. This system produces a black and white picture, and a colour picture is obtained by means of two rotating colour filters, which in effect throw successively red, blue, and green pictures on the screen. 'Persistence of vision', the physical phenomenon which makes it possible to see 'moving' pictures from a series of still projections, in this case helps to super-

impose these three images so that they appear as one colour image.

This system was invented in 1939 by Dr. Fritz Fischer, of the Swiss Federal Institute of Technology, Zurich. After his death in 1947 his work was continued with the backing of CIBA—world famous in the fine chemical industry—and was brought to a successful conclusion.

The first public demonstration of 'Eidophor' took place in Washington at the end of 1958 during a meeting of the American Association for the Advancement of Science; and the first European demonstration was in Basle in April, 1959, being shown first in England in June of that year.

Since then CIBA have demonstrated the system widely, not only in fields such as medicine (where the system has obvious advantages for showing new techniques to large audiences) but in other technical fields as well.

Can such a system have any useful applications in industry? Before attempting to answer that question it is worth considering the results of the demonstrations at the British Association. These included not only the inaugural overflow meeting, mentioned previously, but also the presentation of three lectures.

A Great Success

The overflow meeting was, by any standards, a great success. The 1,000 strong audience were far more attentive than they might have been in the main hall itself. They were able to see speakers and members of the platform far better than they could have done in the flesh; and they were able to enjoy an intimacy which would have been denied them in normal circumstances. These were all technical advantages, but one was thrown up against a new artistic and intellectual problem. Since 'Eidophor' is a closed circuit TV system which presents a programme compèred by a professional using a mobile studio, the presentation of an address raises problems inherent in presenting what is essentially a lecture in visual terms. Here there was evident conflict. The TV producer cannot easily resist the temptation to study the speaker's audience. This is one of the ways in which he makes his TV audience feel 'at home'. It can be a powerful aid to the speaker in relation to his overflow audience. Had they been sitting in another room merely listening to his relayed speech they would have had only the voice to concentrate on. As it was they could see him from several angles—a privilege denied the audience in the speaker's hall. They could also see that others—important people, famous faces—were listening attentively too. All this was to the advantage of closed circuit TV on this grand scale.

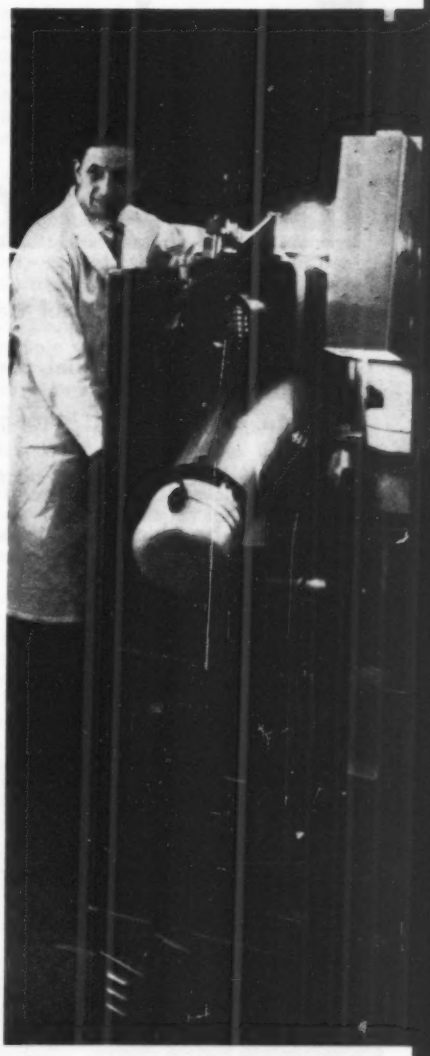
Candid Camera

Because the picture was a cinema-sized picture the event took on a more than life-size stature.

That was an advantage too. But because the roving TV camera sometimes became the candid camera one was suddenly switched from attention to the speaker to a view of a member of the audience leaning on his stick as he sat, or appearing with his eyes closed, or maybe appearing as just plain inattentive. This then was something to distract from attention on the speaker. Moreover it was possible to convey by such candid shots a mood quite out of keeping with the mood of the speaker. This indeed happened at Norwich because B. A. president, Sir Wilfred le Gros Clark, F.R.S., delivered a very closely reasoned address on 'The humanity of man' which emphasized the critical nature of the times in which we live. From a mood of sober consideration the audience was, on one occasion, jerked into delighted laughter at a carefully chosen close-up of the wigs of two civic dignitaries. Moreover laughter in this context has no curbs put upon it—the speaker is unaware of what is going on. The humorous incident is shared by the whole overflow audience—there are no neighbours to hush you into silence.

If there is any lesson to be drawn from this it is that 'Eidophor' is so effective an instrument that to be used properly there must be close rapport between speaker and TV producer. For as the lectures showed this magnificent large-screen colour presentation can bring to a big audience the essence of film itself—the ability to be at the front row—indeed to be in the speaker's shoes. That is an advantage which should not too lightly be thrown away.

If the British Association meeting is any guide this system has obvious applications at large industrial conferences, for the major occasion at technical college or university or management training centre. It will not displace existing small screen TV systems, simply because it is not so intended. It is to them what the vast public cinema is to the home 8 mm. movie or even to the colour slide. There is room for them all and a need for them all today.



Operating the Eidophor unit. Electrical impulses from the television camera are modified by a film of oil on a concave mirror. A powerful light source is passed through the film to project on to a screen

Tougher Climate in the North

Last month the personnel clan gathered in Edinburgh for the annual conference of the Institute of Personnel Management. The atmoshpere on this occasion proved more hard-headed than usual.

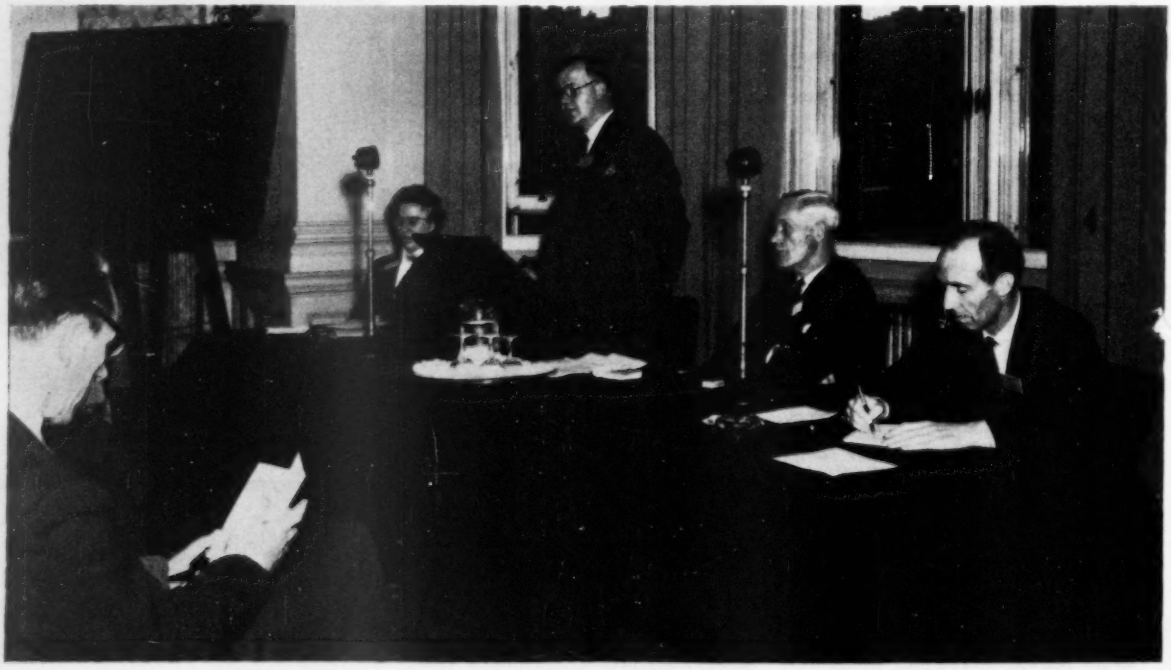
by Howard Griffiths

EDINBURGH is a city of contrasts. The classical 18th century buildings around Princes Street are all reason and light lying under the rougher shadow of the Castle, black and stark on its high hill.

Personnel managers, dedicated to pursuing sweet reason through the darkness of our troubled industrial scene, must have found it a particularly appropriate setting for the annual conference of their Institute. More than 700 of them, men, women, various specialists, general factotums and others, best described as the human 'fringe benefits' of their firms, descended on the city. They welcomed the chance to get away from the daily round of canteen checks and job grading arguments and find time to have a basic salutary think about what they were doing and where they were going.

I think it was more than coincidence which gave a distinctly Scottish flavour

A typical scene at the conference. T. M. Higham speaks on responsibility in industry, while D. F. Hutchison prepares his points.



to the trend of thought which emerged from the table-talk, conference sessions and walks by night through city streets. With so many Scotsmen among the official speakers and living as we did in the heart of their culture we soon found ourselves developing a rugged Presbyterian outlook. This runs "Life is hard but it doesn't make things easier if we pretend that it is otherwise. So let's look the facts in the face and see where we stand".

So I shall remember the conference for a healthy swing away from paternalism to a much tougher and more realistic approach to personnel problems. Attacks fell fast and furious on the humanist thesis that there would be no real conflict between management's aims and those of the rest of the chaps, if only the rest of the chaps could be persuaded that this was so.

A hardening spirit is partly the consequence of Treasury warnings and the fact that the pace of business generally is hotting up, partly local disillusionment and partly a reflection of the international change of heart, best illustrated in the United States, for example, in the work of Whyte and Argyris.

There can be no harder fact in industry than money's importance. So it was appropriate that the opening morning session of the conference should consist of a brisk, efficient talk on the economic aspects of business enterprise delivered by Paul Chambers, the brisk, efficient Chairman of I.C.I. Here clearly was a man who despised all forms of pretence and evasion. He saw the Common Market as a great chance for creative and enterprising managements to make good.

But persistence in restrictive practices by both sides of industry, which in the past shielded inefficiency and produced high costs, would result in loss of business to European competition and ultimately to shut down. 'And good riddance to them too', one could see was Mr. Chambers's sentiment.

The main point of the talk, in this particular context, can only have been to remind us that we were first and foremost businessmen not just probation officers for recalcitrant managers and machiners. This thought occupied us over lunch as we slowly broke down the colour-bar between fully-fledged members of the institute with yellow identity cards in their lapels, and the non-members who sported white.

At the afternoon sectional meetings, the attack on tender minds really got under way. Speaking on communications and joint consultation, John Mack, Director of Social Study at Glasgow University tore into what he called 'the harmony fallacy'. He spotlighted two main propositions which, he said, with the help of sociologists, notably Elton-Mayo, had misled practical managers. These were: (a) that harmony is the natural and desirable state of all group life, and therefore of all large-scale organizations, and (b) that harmony can be achieved by managements who have the requisite know-how of what makes groups tick.

But workers may have interests which genuinely conflict with those of management. Management is dedicated, for the sake of productivity, to the advancement of technical processes. The rank and file of the workers are concerned to ensure that they don't suffer in the short run and from where they stand they cannot be expected to take a long-term view. Managements are naturally technically-minded and workers are usually security minded.

Grape-vine

Hardly any of our formal systems of communications takes adequate account of this conflict. So workers, particularly, shop stewards, create an unofficial system of communication, the 'grape-vine', on the ruins of the lower reaches of the official system.

The fact that the 'grape-vine' is unofficial means that unlike management's formal approach it does not have to adhere to any rules and operates more quickly. John Mack suggested that it may serve a useful function in providing a safety-valve and that, although shop-stewards are almost universally regarded as agents of disruption and delay, by and large, they may shoot down more trouble than they cause.

The main snag was human weakness. The grape-vine might be manipulated by shop stewards who find it difficult not to exploit arrangements in which they exercise power without having formal responsibility.

Such disruption of communications at ground level was traced by Mack to management's failure since the war to give proper support and status to foremen and supervisors. An adequate earnings differential has not been maintained between foremen and the highest paid operatives: the operational effectiveness of foremen has been limited, since joint consultation has meant discussion between top management and workers' representatives to the exclusion of junior management, especially foremen. Coupled with the loss of the right to discipline his men by hire and fire the foreman's status has diminished. He is the awkward in-between in the management structure, nominally responsible as part of management to his superiors and at the same time lacking effective authority over his own subordinates.

Spokesmen of top management, Mack alleged, reply by saying that you can't back foremen in many cases, unless you are prepared for continuous trouble and sporadic strikes. Perhaps, he suggested, it would hamper our productivity less if we made up our minds to face up to sporadic strikes instead of leaning over backwards to avoid trouble at all costs. The smouldering perpetual industrial conflict that we have now may do more harm than open strife.

The main battle of the afternoon was taking place at the same time in a packed conference room in the North British Hotel. The subject discussed here was responsibility in industry with particular reference to management authority and workers' rights.

The debate brought together two utterly contrasting personalities from completely different backgrounds. On the one side there was T. M. Higham, Rowntree's chief employment manager, who lives in a baronial castle in Yorkshire. As befits a psychologist he kept a certain distance of dispassion between himself and the subject under review. Being very civil and civilized, his concern was with morality as much as efficiency, his objection to unreason in industry was an objection to the forces of darkness in general. Fortified by the Rowntree tradition of good works and good relations he was not easily to be persuaded that the ideal of harmony could be denounced as a fallacy.

Tough Scot

On the other side of the table, drinking water in whisky tots, sat the tough wiry D. F. Hutchison, a Scotsman who is chief personnel officer to Philips. His industry is one in which technical change and innovation make life hectic; time is at a premium and so is patience. There was an almost religious fervour to the way in which he castigated as folly and wickedness all attempts of trade unions to wrest from management the authority which was properly theirs.

T. M. Higham began by saying authority always carries with it some notion of rightness or morality. Workers on a factory bench say of some decision by their supervisor, 'What right has he to do that'? He may

have several kinds of justification—position, knowledge, strength of character. In industry authority mainly stemmed from the possession of a superior position or superior knowledge. From the fact that the manager has responsibility for the wider good of the enterprise, he derives his right to command and expect obedience.

Managers must look at all problems in the light of what is good and right for the firm as a whole. They will not be successful as managers unless the authority which they possess by virtue of their position is accompanied by moral authority.

Hutchison's speech immediately took the offensive against the unions. Their first mistake, he growled, was to attack the authority vested in management. Management is a function, not a body of people; if unions attempt to assume the authority of that function they become incapable of adequately looking after their own members.

It was the unions' business to criticize and check management decisions; it was not their business to take decisions along with management. By so binding themselves to each agreement, they greatly hamper their own freedom of movement. It was nonsense to say that management must be wrong every time it chose to disagree with unions around the consultation table and to go ahead with its own decision.

Two other factors, he said, contribute to our industrial unrest. First is the paradox in which most men live their lives. At school, at home, throughout our culture men are educated to believe that they live in a democratic society and to hold to the view that 'Jack is as good as his master'! Yet most of our lives are spent in an autocratic situation where ready obedience, status and authority are all-important.

Snap Decisions

In the industrial situation, Hutchison remarked testily, time does not permit you to be democratic. Snap decisions have to be made to remain in business, and it is simply impracticable to suggest that one ought to throw open every decision to debate before action. Instead of objecting to the introduction of new techniques in general, the unions ought to spend their time checking the malapplication of techniques once they have been introduced.

The best guarantee of fair-play was to inject some objectivity into the industrial scene. Managers should be organized into making facts about the muddle, the politics, and the folly of both sides available to the general public. It was public opinion which ultimately settled most disputes.

This revivalist if not reactionary speech stirred the audience to more than polite applause. Higham of Rowntree quietly rose to declare his disagreement. Democracy, he maintained, did exist in the industrial situation for its three crucial elements, free speech, appeal and consultation were all there.

Question-time allowed the fiery Scot to harry the unions further. They were not getting respect because they failed to question their own aims and motives half as thoroughly as managements did. He saw the unions as a powerful external force who ought to be much stronger.

"The great goodwill which spread through industry after the war was dynamic but now it has got all mixed-up" was one of Hutchison's remarks. When people are mixed up, a psychologist is needed and James Drever, Professor of Psychology at Edinburgh University was just the man to fit the bill at the next morning's session in the Assembly Rooms. The great industrial mix-up was pinpointed, disentangled and analysed for the harm it caused.

Our great error he maintained, has been to pretend that things are other than they really are, to hang on to the shadow of an optimistic illusion instead of facing up to reality.

To take specific points, in pursuing neatness we draw up organization charts which don't reflect the way things are. Joint consultation instead of being what it sounds has become a kind of ritual placation ceremony. Our society has egalitarian ideals but our lives are spent in an authoritarian working environment. So men have grown up, torn between the two, seeming to exercise responsibility and authority but not really possessing it.

All these shadows have created neurotic uncertainty and insecurity in men's minds. Things never are as they seem. Once uncertainty has been created it is impossible to reassure or teach men any more. Some kinds of psychological damage are irreversible, each human life being a one-way process: experience can never be retraced.

So, said Professor Drever, there can be no short-term solution to our industrial troubles. Each year new recruits enter industry; we must ensure that they are taught to see things as they are. "If you are authoritarian you should seem to be authoritarian'.

When Lord Robens of U.S.D.A.W. and the N.C.B. took the platform he made it apparent that the no-nonsense spirit of the conference was to be foistered yet higher. His personality is a combination of massive dignity and honest working-class commonsense which makes 'Lord Alfie' the only proper title for him.

"There is too much egg-head talk about the possibility of people being happy in their jobs if they are made to feel a part of the organization", he declaimed. "Let us realize that there are thousands of jobs which can never make people feel any satisfaction". For men in such occupations, satisfactory compensation might be secured outside their jobs in public service. "Ernie Bevin found no satisfaction in driving a ginger-beer cart around the streets of Bristol, but he managed to lead a pretty full life outside his daily work".

More Teamwork

The boringness of jobs on a production line or at the coal-face was accentuated by their loneliness. In the N.C.B. increased mechanization had made possible the development of teamwork to eliminate solitude. Quite apart from improving job conditions, the experiment had paid off in terms of increased productivity and a stronger sense of self-discipline throughout the team. Each industry had to sort out for itself the question of how to make its own investment in job satisfaction.

Turning to personnel management, Lord Robens warned against the dangers of regarding it as a 'skilled craft' where all that mattered was the cleverness with which victories were secured over the other side. Our job was to achieve a thorough understanding of a problem and a common approach to the remedy. We should grasp at the common aim rather than manoeuvre for victories or compromise.

This was exactly what D. F. Hutchison had earlier recommended the unions to do. The lesson of the conference was that neither side in industry is going to make much progress until it stops deceiving itself about two facts, first, that a successful business has to be conducted along authoritarian lines, and, secondly, that the interests of every party in the industrial situation do not necessarily coincide.

Lord Robens could be wrong when he said that the successful personnel manager was the man who never had a strike on his hands. A factory tour to inspect morale and a glance at his company's production figures would seem perhaps to be a better measure of his true achievement.

Twenty-five Spots and a Television

"A nice canteen and pretty walls don't make the job good. It's what you spend most of your time doing that counts". So thinks Joe, a 'semi-skilled' worker in an automobile factory.

His job is to weld the cowl to the metal underbody of a car. The jig is all made up and the welds are made in set places. "25 spots". Then the line moves on and there is another underbody with 25 spots, and another, and so on *ad nauseam*, eight hours a day, every day of the week of the year. For this he gets good pay, his wife has a refrigerator and a television set, and he is identifiable as a potential neurotic.

'A high standard of living' seems a bad joke when applied to people like Joe. "Call this living!" is the reply on the 999th weld.

In **The Anatomy of Work,** George Friedmann, Director of Studies at the Ecole Pratique des Hautes Etudes, Paris, analyses the roots of frustration in factory and office jobs and makes some suggestions on how we might tackle the problem of enlarging the job.

Division of labour until recent years was the unchallenged formula for increasing the speed, quantity and economy of production. The less complicated the unit of work, went the theory, the more rapidly and better will it be done. This was fine as an engineering principle, but the human factor was neglected. Now it seems that even on purely economic grounds the time may well have arrived for applying the brake to the trend. The case is quoted of a factory making lingerie where a reduction of the size of teams from six to four workers caused output to rise by 43 per cent, *because the job was more interesting.*

Mr. Friedmann surveys experiments conducted in America, France and Britain along such lines.

The book at all its levels, sociological, psychological and economic, is about why it is important to experiment and save workers from becoming as mindless as the machines which now control them.

Occasionally, it is a good thing to get back to first principles and to dig deep into the darkness of a worker's feeling for his job. If you think such questions lie outside the province of personnel management and words like 'sociology' frighten you, it would be well to remember that industrial troubles are like icebergs; the seven-eighths which do the greatest damage always lie under the surface.

Published by *Messrs. William Heinmann. 26s. post paid.*

Optimum Use of Engineering Talent, edited by J. W. Blood. *American Management Ass.;* also *Bailey Bros. & Swinfen, 82s. 6d. post paid.*

It is often felt that there is a considerable gulf in the relationship of management and technical personnel. In an attempt to close the gap this book presents a unique and comprehensive analysis of the management of engineers. The backbone of the material has been obtained from a number of case studies in which executives describe their effective management techniques.

Those involved in the 31 case studies which this book contains are aware of a common problem, this being the real and continuing shortage of engineers and the need to make the optimum use of the engineering skills and talent that are available.

The engineering manager provides the essential link between top management and the engineering division, and it is for him that this book has been composed. It shows him how to help both top management and the engineer to do a better job.

Let's Get Down To Cases, by Lydia Strong. *Bailey Brothers & Swinfen Ltd., 28s. post paid.*

This book is an approach to swapping problems—and discussing them. Each case is a true story of a tough situation faced by supervisors and typical of the type of problem that they are often confronted with.

The studies are clearly set out as 'histoires' which put the reader fully in the picture as to the problem and its environment. Following each of these problem case studies a series of questions are enumerated leaving it to the reader to provide the right answers.

The book is well thought out, the problems are day to day, practical, and the answers similar to those which might be arrived at.

While the book can be considered primarily aimed for the use of discussion groups it should prove of immense value to any individual reader.

ORDER FORM

Business Book Centre

will obtain for you any of the books reviewed here. Send a remittance for the full, post paid price, together with the completed coupon below.

Business Book Centre, Mercury House, 109-119 Waterloo Rd., London, S.E.1

I enclose remittance £ ..... for the following books:

.....

.....

.....

.....

NAME .....

ADDRESS .....

.....

Another Success for the B.E.E.

A glimpse of last month's 49th Annual Business Efficiency Exhibition which was held at the Olympia, London, in conjunction with the Electronic Computor Exhibition.

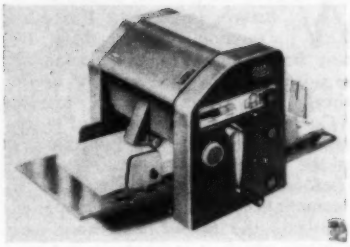
A RECORD number of 138,604 visitors attended the Exhibition which was opened by the Right Honourable Reginald Maudling. During his address Mr. Maudling complimented the industry on its spectacular expansion and the way in which the percentage of goods exported had kept pace with it.

Commenting on the show Mr. E. F. Lewis, President of the Office Appliance and Business Equipment Trades Association, said: "Many overseas visitors—we have had them from 78 countries—said it was the best exhibition they had ever seen". This increased overseas interest in the industry is substantiated by the encouraging export figures. Sales abroad of office equipment during the first six months of this year reached £20,026,061, compared with £37,133,152 for the whole of 1960.

The 'Kingsbury Adaptable' unit is produced by Kingsbury Office Equipment Ltd. It makes every waste paper basket serve the purpose of an occasional table without taking up any extra space.

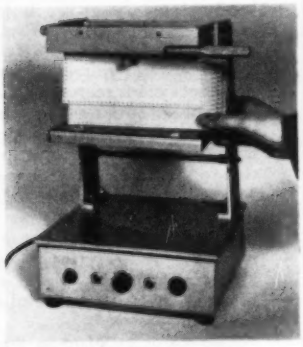
Ozalid's new Ozafax 19. A machine for the drawing office which makes large scale copies from microfilm drawings at six copies per minute.

The Quick portable add/listing machine, by T.S. (Office Equipment) Ltd. To this range has now been added an electric model of 6/7 and nine column capacity.



An example of the new Rex-Rotary range of stencil duplicators marketed by Office Machinery Ltd. The models are available in two versions, either as hand operated or electric machines.

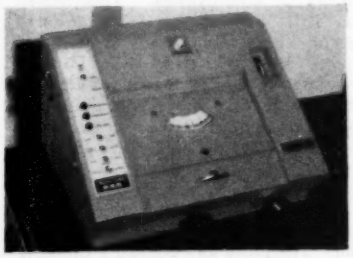
The Rasanta book-keeping machine has wide applications, covering both ledger and statistical work as well as performing its basic functions of a typewriter. It is manufactured by Grundig Triumph Ltd.



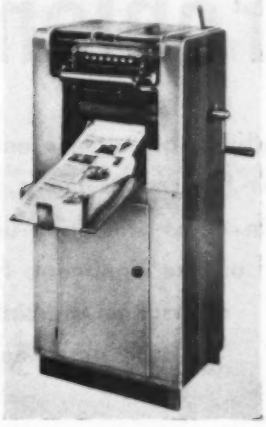
A selection unit with electric vibration for speedy multi-rod selection of edge-punched cards. By George Anson, it will select up to 500 cards in one operation.

Undoubtedly one of the most interesting exhibits was the revolutionary I.B.M. 72 electric typewriter. This machine has as its main feature a single, interchangeable typing head containing all the 88 characters of the key board. Among the advantages of such an outstanding design are; a fixed carriage, a stroke storage system, an interchangeable ribbon cartridge, and an index key for rapid vertical spacing at any point. With such features it provides faster typing speeds—at least 50 per cent more than the sustained rate of a very fast typist.

The model 840 Headliner Photo-Composing Machine is a new product which photo-composes headlines for enlargement or reduction, or same size. It is marketed by Vari-Typer Ltd.



The R 70 is an example of the very full range of Roto-print small off-set printing machines which are capable of producing a wide variety of printed and duplicated matter.



Problems in the Six

The possibility of Britain's entry into the Common Market has caused many organizations to think in terms of setting up manufacturing units on the Continent. Here, Alan Beaton, of Personnel Administration Ltd., surveys the personnel difficulties involved.

WITH the growing possibility of Britain joining the European Common Market, there are many British organizations considering the advantages or otherwise of establishing subsidiaries in the present six Common Market countries—France, Italy, Germany, Belgium, Luxembourg and the Netherlands.

Before any final decision is made, it is essential, of course, that a company investigate the labour conditions and problems which it is likely to encounter on the Continent. The question of personnel relations in Europe is a highly complicated one. There is a great complex of laws and regulations concerning contracts of work, social security, apprenticeships, welfare arrangements, lost time, notices of resignation and dismissal, and so on. The laws differ widely from country to country, even from industry to industry in the same country. It is therefore possible, in the scope of an article, to give only a generalized picture of the difficulties and problems which British personnel management would face.

There is a design for the eventual simplification of the various labour laws—and such simplification is essential for the achieving of the Common Market aim of complete freedom of movement of labour—but this will obviously take time before it is realised. So the only way for a company to apprise itself fully of the situation at present is by a detailed, and on-the-spot survey.

The major problem in the Six is the availability of labour—in quality as well as quantity. Unemployment in the Common Market countries is comparatively low, as table A indicates.

It may be safely assumed that the better workers, those who are skilled and experienced, are for the main part already in employment. This means that it is already far from easy to obtain a good work force on the Continent. With the entry over the past few years of United States subsidiaries into Europe, the " cream " of the working population has already been taken. So, inevitably, as more foreign firms enter the area, wages will rise, especially those of the skilled and semi-skilled. And they will probably rise at a faster rate than they have done to date. Therefore any company thinking

of setting up in the six Common Market countries may find that by the time its plans have been put into effect wages have risen appreciably.

Nor must it be thought that wages in Europe are necessarily lower than in Britain. Although this may be the case as a national average, in many manufacturing industries British hourly wage rates are lower than in some European countries. In Belgium and Germany, for example, wages in the metal and food production industries are higher than in Britain; and France has higher wages in the printing and clothing industries.

Even where hourly wage rates in Britain are higher than in Europe, it must be taken into account that, although national social welfare schemes on the Continent are inferior to Britain's, social welfare charges on employers are higher. So real labour costs are much closer to the United Kingdom level than wage rates alone suggest—and, in fact, in Western Germany they are higher. Table **B** helps to illustrate the point.

It is reasonable to assume that social service costs, either through state schemes or increased employers' benevolence, are likely to increase as well as wages. In addition, a shorter working week can be expected, with consequent increases in overtime costs.

Where state social security schemes are meagre, as in France and Italy, the employer often has to pay more by way of providing greater welfare services for his employees—sick pay, canteens, sports facilities, rest rooms and so on. In some areas of Italy, employers have a strong paternal—and costly—interest. Welfare services provided in these cases are so good that it has been difficult for trade unions to make much headway. The attitude of workers is that if they are already enjoying full welfare facilities there is little point in paying union dues. Obviously, if a British company were to set up a factory in such areas, it would have to compete in these "fringe" benefits.

In France and Italy the trades union movement tends to be divided along religious and political lines, and because such divisions make for weakness, the unions have comparatively less authority than, for instance, in Germany, where there is a strong centralised trades union movement. Paradoxically, the Italian or French employer often has to provide more in the way of "external" welfare benefits, because the weakness of the unions has slowed down state social security progress through pressure on governments not having been strong enough. In Germany the path of the employer is somewhat eased as far as co-operation with employees is concerned. It is here that the principle of "co-determination" has been pioneered. By law, workers have a direct voice in the day to day management and operations of the businesses which employ them. They elect their own representatives to the management board, and this leads to a high degree of joint participation. Although the workers' representatives may tend to concern themselves more with welfare matters, they have the power to deliberate on other aspects of management—they are entitled, for example, to have access to profit and loss accounts.

But the law can work both ways. It also gives protection to employers against stoppages. It is interesting to note that Germany has had fewer strikes in recent years than most other countries—and it has been known for a German trade union to be heavily fined by the courts because its members came out on strike, thus breaking their employment contracts.

Throughout the six countries, the various national labour laws have one theme in common—stability of employment. Despite the advantages of this, it does place some limit on the employers' initiative, since stability brings with it an element of rigidity. This could certainly affect ideas of reductions in labour forces. On the other hand, the new entrant has the great advantage of his newness. A new factory, starting from scratch, with no past indiscretions in the country concerned, can build its labour force gradually to fit its growth plans. After all, it is usually a sign of indifferent management, if a labour force is expanded too quickly and needs to be cut back.

However, should dismissals become necessary, for whatever reasons, these are subject to different laws in different countries, and even in different industries. In Germany, for instance, in some industries notice can only take effect from the first or fifteenth day of the month; in other cases, notice of dismissal has to be longer or shorter, depending upon the length of service of the employee. The whole question of cessa-

(continued on page 37)

TABLE A

	Population	Working population	No. employed	
Belgium	9,178	3,504	3,384	
Germany	53,049	25,245	25,005	*The figures are in thousands, and all refer to 1960*
France	45,355	18,830	18,595	
Italy	49,230	20,201	19,407	
Luxembourg	312	149	149	
Netherlands	11,417	4,244	4,195	

In this context Germany means West Germany and does not include figures for West Berlin.

TABLE B

	Approximate average hourly wage rates in manufacturing industry	Social welfare charges	Total cost per hour
Britain	5/-	9d.	5/9d.
Belgium	4/-	1/3d.	5/3d.
France	3/6d.	1/9d.	5/3d.
Germany	4/6d.	1/9d.	6/3d.
Italy	2/9d.	1/9d.	4/6d.
Netherlands	3/6d.	1/-	4/6d.

Problems in the Six

continued from page 35

tion of employment is highly complex and needs careful study.

Although much has been said about eventual complete mobility of labour in the Common Market countries, there is still a long way to go. Three stages have recently been agreed. The first, expected to last about two years, is a cautious advance. It rules that where vacancies exist the domestic market must be given three weeks' priority for the filling of them, and only after this period has expired, can employment offers be transmitted to other countries. The second stage envisages a reduction of the priority period. And it is planned that the third will establish complete freedom of movement.

However, movement of labour, free or otherwise, carries plenty of problems . . . especially for personnel managers. It would be unwise to set up a factory in one country where labour may be scarce, in the hope that by the time one is ready to expand, workers can be "imported" from some other country. Such importation of labour also imports problems of accommodation, language difficulties, environmental differences, the separation of families, and so on. In general, it is probably better to think in terms of movement of capital to where a labour supply exists rather than vice-versa. It must be remembered that only a small proportion of a country's working population is prepared to be uprooted.

Finally, the personnel manager who has to face the problem of establishing a work force in Europe must take into account the problems which cannot be legislated for—differences in language, in national characteristics, in climatic effects on working hours and conditions and so on. Because of the intricacy and importance of the problems to be faced, it would be advisable to appoint a citizen of the country concerned to supervise the new work force, someone already qualified in personnel work and acquainted with the complexity of labour laws and regulations.

Meanwhile British personnel managers should study the Rome treaty, the vast document that is a blue-print of the new European Economic Community, and contains full details of its aims. Much useful information can also be obtained from the European Social Charter, approved this year by the Committee of Ministers of the Council of Europe. This covers such matters as the rights and obligations of employers and employees (including the right to work, the right to join trade unions and so on), social security and welfare, medical assistance available, apprenticeships and many other topics. It also pronounces in favour of equal pay for men and women—and this is probably not too far away. In recent years the wages of women workers in Europe have increased at a higher rate than those of men.

British companies must therefore make no mistake: they are not going to find a cheap labour supply in Europe. As the Common Market progresses, its labour costs may well rise higher. If Britain does join with the Six, many companies may find it a better policy to increase their production facilities in this country and take advantage of the lowering of trade barriers to "export" to Europe. For those who do find it necessary to establish manufacturing units on the Continent, the best advice one can probably give in view of all the personnel problems involved, is to move cautiously in the early stages, to be in full possession of all relevant information before moving, and to consider carefully the possibility of association with an existing European company.

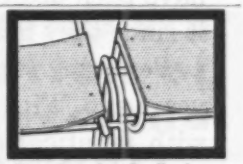
UNIQUE SELF-LINKING

Remploy·Stafford

STACKING CHAIRS

Reg. Design Nos. 893239, 893941. Patents Pending.

The greatest advance in chair design since stacking — and so practical



How Remploy/Stafford stacking chairs link together . . . stack better too.

Ideal when temporary, group-seating-systems are required and storage space is limited. These new, revolutionary Remploy/Stafford chairs link together *automatically* and rigidly. No clips or accessories are required. And they stack better too—as high as you can go.

MS9/18 Remploy/Stafford standard model. Strong tubular steel frame. Preformed, multi-ply backrest and seat. Dimensions: Height 29½", Depth 18", Seat height 17½", Overall width 20½", allowing a comfortable, linked-together space of 19" per person. Also available in a special Junior size which links at 16" per child.

MS14/18 Remploy/Stafford de luxe, self-linking model. Upholstered in foam rubber. Covered in washable plastic, embossed in a distinctive black and white design.

2 MORE REMPLOY STACKING CHAIRS

— always in great demand

MS4 Sturdy, lightweight, continuous tubular steel frame with polished canvas backrest and seat. In red, blue or green. Seat height 18".

MS5 Similar frame to MS4 but with beech plywood seat and back.

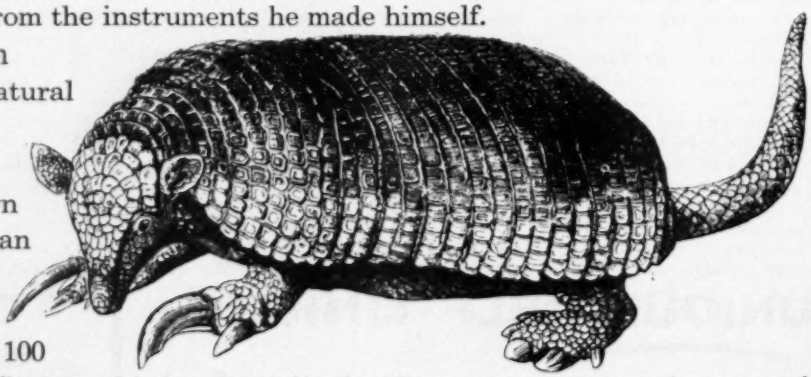
Write for the free brochure illustrating the complete REMPLOY/STAFFORD range of Tubular Furniture to:—
REMPLOY LIMITED, School Furniture Sales Division, 415 Edgware Road, London, N.W.2. Tel: GLAdstone 8020
London Showroom: 22 Bruton Street, W.1. Tel: Mayfair 4881/2.

ARMOUR AND THE MAN

With somewhat grim and forbidding humour Nature faces her creatures with mortal dangers and at the same time provides means to avoid them.

Armadillos and snails are armour plated. Birds can take to flight. Many animals, of course, take refuge in speed.

Man is poorly protected however. From the moment of his birth he faces deadly dangers. The forces of gravity and all forms of energy threaten him unceasingly. His elemental servants fire and air can destroy him. As soon as he goes out to work he faces death or injury from the instruments he made himself.



There is a vast study in protecting man from natural dangers, unpredictable hazards and the consequences of his own ingenuity. Siebe, Gorman have been dedicated to it since they first made diving suits over 100 years ago. With Siebe, Gorman this is a specialised and intense vocation to be pursued with fanatical application. Wherever there is an occupational risk there is Siebe, Gorman equipment to guard against it.

Advanced as the most vigorous research can make it, tested with the integrity which a question of life and death demands, Siebe, Gorman protective equipment is used by the armed forces, in mines, by the railways, by the steel industry, in the biggest chemical factories, by the Atomic Energy Commission, by fire brigades and municipalities. Wherever life may be in danger Siebe, Gorman & Co. is ready to guard it.

EVERYTHING FOR SAFETY EVERYWHERE

Aqualungs · Blasting and Other Helmets · Breathing Apparatus · Car and Aircaft Safety Harnesses Compressors · Diving and Underwater Equipment Dust and Fume Respirators · Gas and Smoke Masks Protective Clothing · Recompression Chambers Resuscitation Equipment

SIEBE GORMAN

Siebe, Gorman & Co. Ltd.
Neptune Works, Davis Road, Chessington, Surrey. Telephone: Elmbridge 5900.
Branch Offices at:
Birmingham, Glasgow and Manchester.
A member of The Fairey Group of Companies.

PREVENT INDUSTRIAL SKIN HAZARDS

USE THE RIGHT CLEANSERS & BARRIER CREAMS

KEROCLEANSE KERODEX

KEROCLEANSE

waterless cleansers

KERODEX

barrier creams

ARE BACKED BY
SCIENTIFIC PHARMACALS INDUSTRIAL
SKIN CARE ADVISORY SERVICE

—expert advice (without charge or obligation) covering process layout, cleaning and protective routines, and all measures needed to prevent skin troubles due to industrial hazards. For full details and samples please write to Dept. PM.

SCIENTIFIC PHARMACALS LTD. INNOXA HOUSE
436 ESSEX ROAD LONDON N.1

60,000 CUPS OF TEA EVERY WEEK

is the incredible total number served to workers in this factory. Each machine uses only the best ingredients kept under refrigeration until ready to serve. Do yourself a service and send for full details now to :

STOCKDALES INDUSTRIAL VENDERS LTD.

Hunstanton, Norfolk. Phone: Hunstanton 377

To the complete Satisfaction of Employees and Management!

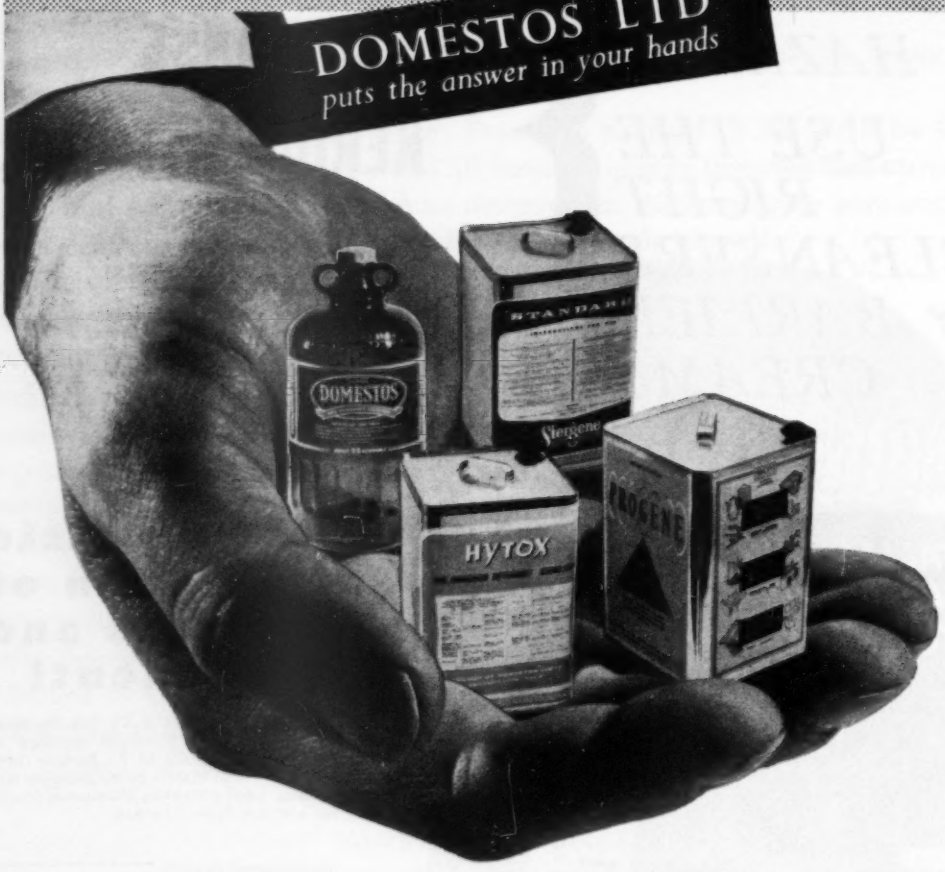
That's the story behind the 25 Tea Machines and 4 Tea and Coffee Machines installed by Stockdales at the factory of F. Perkins Ltd., Peterborough. These machines are also operated by Stockdales, each providing 250 cups of freshly made tea without replenishment.

Mr. W. B. Stockdale, driving force behind this and many other such installations, offers you the benefits of his extensive experience in Automatic Industrial Catering.

You can meet Mr. Stockdale on STAND D.10 at the INTERNATIONAL FACTORY EQUIPMENT EXHIBITION.

hygiene...

DOMESTOS LTD
puts the answer in your hands



A quarter of a Century of practical field experience
backed by bacteriological and chemical research
have provided Domestos Limited with the answer to every cleaning problem
in the Food Trade, in Hospitals and in all branches of Industry.
A selection of detergent products
and Domestos — today's most widely used sterilizing liquid
— ensure the highest possible hygiene standards.

Send for literature to Dept. P.M.

DOMESTOS LIMITED, COLLEGE WORKS, ALBION ROW, NEWCASTLE UPON TYNE, 6.

CIA 1181

Sir Ewart Smith

On Show—Industry's 'Silent Service'

The first National Maintenance Conference and Exhibition takes place at the Central Hall, Westminster, on November 13. This four-day conference, sponsored by the Business Publications Group, presents an ideal opportunity for an exchange of viewpoints, techniques and ideas, on one of industry's most important facets.

MAINTAINING the heartbeat of production is the job of the works or plant engineer, a figure who is only too often taken for granted. At least, until production grinds to a halt through the failure or breakdown of a link in the often automated chain of manufacturing processes. Such occurrences are not infrequent in spite of modern equipment, and the very fact that the equipment is modern invariably results in even greater disruption.

Scheduled maintenance goes a long way to providing the cure before the trouble starts, and this involves the use of new ideas and techniques by those responsible for ensuring continued production. Unfortunately not all management readily appreciates this—in the main, possibly, those fractions which are not unduly exercised by breakdowns and who are therefore comparatively unaware of the 'silent service' which is hourly keeping them out of trouble.

It is therefore a particularly warm welcome which is afforded to a new venture this month, namely the first National Maintenance Conference and Exhibition. This conference has been designed specifically for the maintenance engineer—and the more far-sighted elements of production and general managements—with the object of exchanging ideas, analysing the many facets of the maintenance manager's work, and displaying up-to-date equipment and techniques.

The four-day conference and exhibition will be formally opened by Sir Ewart Smith, who retired recently from the board of Imperial Chemical Industries Ltd. He will also 'chair' the opening morning session of the conference. At each of the four morning sessions papers will be read by experts on the problems of industrial maintenance, with time for discussion and questioning. Each afternoon session is scheduled to be subdivided into three discussion groups. These will enable the delegates attending the conference to investigate and discuss the problems of maintenance engineers in large, medium, and small plants, and in different industries. Among the industries selected for discussion are chemical, petroleum, nuclear, and light and heavy engineering. There will also be discussions on such specific subjects as 'The Role of Contractors in Maintenance', 'Purchasing and the Maintenance Department', and 'Maintenance of Instruments', as well as an opportunity for an exchange of views on welding, corrosion, lubrication, and new materials.

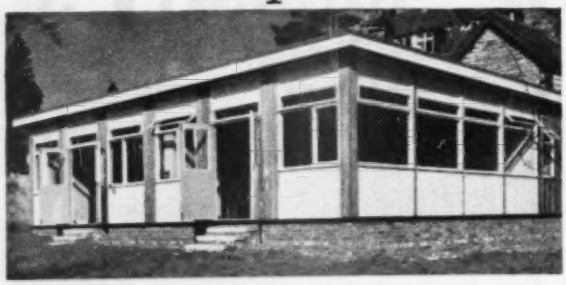
On the day following the conference a number of visits for delegates have been arranged. These include visits to such places as the Renault Motor Car Works at Billancourt, France, the Coryton Refinery of the Mobil Oil Co., the Paints Division of I.C.I., Battersea Power Station, the Dagenham works of the Ford Motor Co., and to London Transport at Chiswick. Obviously the most unusual of these visits is that to the Renault plant.

The exhibition is housed in the same building as the conference and a large number of suppliers of maintenance and industrial equipment will present a wide range of products, equipment and services. Among the many exhibitors are a number of office equipment firms who are showing and demonstrating preventive maintenance control stores and machinery records and equipment. Three films to be presented by the National Coal Board Technical Service should prove of considerable interest.

Other exhibitors will be showing and demonstrating new industrial cutting tools, electrical and mechanical lubricants, and dispensers which include new aerosol methods. Also featured will be paint spray materials, a wide range of industrial hose and high pressure flexible pipes and fittings, and plastic dressings for floors, roofs and walls. These are only a few examples of the exhibits to be displayed, others include mechanical handling devices, valve systems, electronic apparatus, and gas-operated equipment.

It is certain that this first National Maintenance Conference and Exhibition has aroused very considerable interest and support and that the delegates attending—there will be well over 1,000 of them—are sure to benefit.

space to your specification



Contemporary or Traditional

PEEL'S
Prefabricated Buildings

Whether you require a classroom, a sports pavilion or a building extension PEELS can meet your requirements with a prefabricated building from their vast range or with a design exactly to your specification. This beautifully designed classroom at a school in North Yorkshire is an example of PEELS prefabricated buildings.

H. Peel Limited, (PM) Sowerby Bridge, Halifax. Tel.: Halifax 81211

Busy Hands need Swarfega

ANTISEPTIC HAND CLEANSER —SATISFACTORILY SOLVES MANAGEMENT AND WELFARE WORRIES

REMOVES PRINTERS INK · PAINT · OIL · GREASE · TAR · DYES · RUBBER COMPOUNDS & INGRAINED GRIME

SWARFEGA is the easiest way of providing clean, germ free hands and costs only a penny per man/week. Efficient dispensers prevent waste and ensure economy.

Obtainable everywhere

AWARDED THE CERTIFICATE OF THE ROYAL INSTITUTE OF PUBLIC HEALTH AND HYGIENE

BY Deb

DEB CHEMICAL PROPRIETARIES LIMITED
FORFAR WORKS · BELPER · DERBYS.

Best for all protective clothing

Dainite

WASHABLE AND UNBREAKABLE BUTTONS AND SLIDE BUCKLES

● Labour saving ● Permanent
● Never need be removed

Samples supplied upon request

THE HARBORO' RUBBER CO. LTD.
Dainite Mills,
Market Harborough. Tel: 2274/6

Well cut and tailored

overalls

FOR MEN AND WOMEN

Quality of materials, cut, and fine workmanship are among the outstanding features which have placed Garrould's Overalls, Warehouse Coats, Mess Jackets, and all types of men's and women's protective clothing in a class of their own.

MAKERS OF ALL TYPES OF OVERALLS FOR OVER 100 YEARS

Garrould's

130-162 EDGWARE ROAD, LONDON, W.2. PAD. 10

It's plain sailing to furnish with STEEL STYLE Tables and Chairs

Steel Style tables and chairs have everything—good design, colourful finishes in first class enamel, gay hard wearing table tops, attractive chair coverings and superb chair comfort, extra strength (Steel Style are made from finest tubular steel), lightness, long wearability, quick stackability, and easy clean lines. And as all these features cost no more it is obvious why value-for-money conscious organisations specify Steel Style canteen furniture. Yes, Steel Style canteen tables and chairs make canteen furnishing very plain sailing. Why not phone or write one of the addresses below for full Steel Style information.

NEW EQUIPMENT LTD

CROXDALE, COUNTY DURHAM. Spennymoor 2246/7
LONDON, GRAND BUILDINGS, W.C.2. WHI 2428
GLASGOW: 385 SAUCHIEHALL ST. Douglas 4479

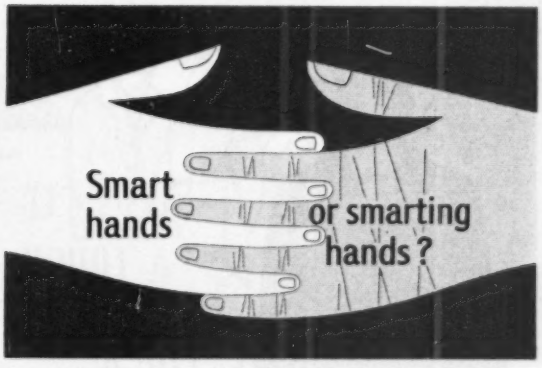
HOTEL Astor

YOUR CENTRE FOR LONDON

Modern Hotel Astor, within walking distance of Paddington Station and Marble Arch, is the perfect centre for visiting businessmen. Spacious lounges are provided for entertaining and relaxation, there is a fully licensed Cocktail Bar, and the spacious dining room is served with speed and efficiency.

Guests' rooms have H. & C., central heating and telephones —some have private bathroom and toilet. Lifts to all floors. B. & B. from 30/-. Illustrated Brochure and Terms from the Manager on request.

HOTEL ASTOR 26-30 Craven Hill Gardens, London, W.2.
Telephone : AMBassador 0181



Dermatitis hurts. Both hands *and* production suffer. The difference between smart hands and smarting hands is a Rozalex Barrier Cream applied before work. There are 12 of them for use according to the industrial irritant encountered. **AFTER WORK**, new Rozalex Industrial Skin Cleanser removes dirt and contaminants quickly and safely, leaving hands thoroughly clean and supple.

Other specialised Rozalex products include Stain Removing Cream, Resin Removing Cream and Waterless Skin Cleanser.

ROZALEX

Keeps Hands HEALTHY

Write for details to **ROZALEX LIMITED** The Pioneers of Barrier Creams
10 NORFOLK STREET, MANCHESTER 2 · BLACKFRIARS 1122-4

TGA 81570

EQUIPMENT MARKET

A Monthly Survey for Personal Managers

For more details, USE COLOURED FORM AT BACK

Fire Tactics

HOW many of your employees know how to handle the fire extinguishers provided in your factories and offices? A revised edition of the Fire Protection Association's booklet, *'Portable Fire Extinguishing Appliances'* contains a chapter devoted to giving advice on the subject. There are sections containing general instructions on training and on how to attack a fire, varying one's methods according to whether the extinguisher is of the water, foam, or dry powder type.

The rest of the booklet gives up-to-date information on the choice, installation and maintenance of portable fire-fighting equipment in all types of buildings. An important development since the 1957 edition is that dry powder extinguishers have been proved effective for dealing with the majority of fires in flammable liquids.

The price of the booklet to non-members of the Association is two shillings.

Enquiry Ref. No. S11/1

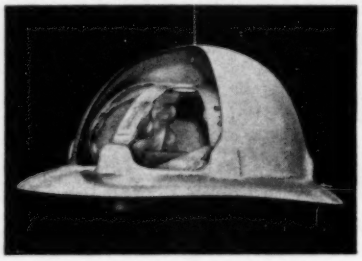
Safety in Comfort

NOW that safety equipment has attained a high standard of efficiency, manufacturers are beginning to concentrate on giving the wearer maximum comfort

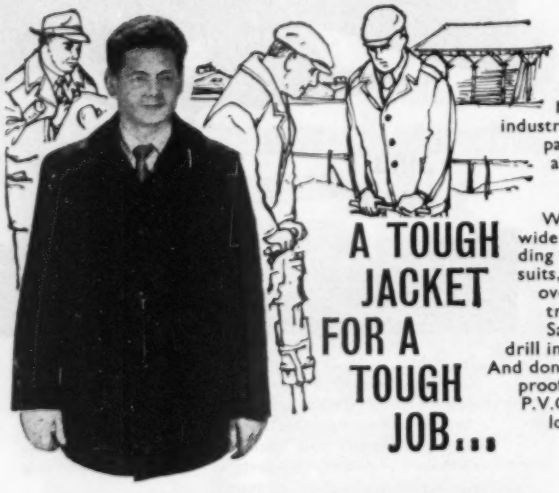
Safety officers should have little trouble in persuading constructional workers and others whose job demands some form of head protection to wear the new head harness produced by *Safety Products*.

This consists of a moulded polythene spider cradle fitting over the head, the end of each leg having an adjusting device in the form of a nylon stud which can be moved up and down a holed slot inside the hat. Allowance is made for the varying contours of individual heads, which is not possible in the case of the usual method of adjustment by means of a drawstring.

Another advantage is that the hat can be worn in headsling style, if desired,



(continued on page 46)



A TOUGH JACKET FOR A TOUGH JOB...

For hardwearing protection it's the Welfit Donkey Jacket, made from showerproof navy Melton cloth. Ideal for industrial workers it has large, patch pockets and is available with or without the leatherette back and shoulders.

Welfit also manufacture a wide range of overalls including warehouse coats, boiler suits, bib and brace overalls, overall jackets and overall trousers — all made from Sanforised shrunk cotton drill in white, navy and khaki. And don't forget Welfit Waterproof Protective Clothing in P.V.C. and HYDEX—jackets, long coats, leggings sou'-westers, etc.— right for all weathers.

Send for illustrated catalogue showing the complete ranges of Welfit clothing to:—

WELFIT MANUFACTURING CO. LTD., (Clothing Division)
Phone 66326 Hanson Lane Mills, Halifax. Telex 51235

"Wheelers of Plaistow"

specialists in the manufacture of

OVERALLS

for

MEN

and

WOMEN

in every Trade

The "VOLE" Brand DIGNIFIES THE JOB

H. WHEELER & CO. LTD

Overall Clothing Manufacturers

187 LONDON RD., PLAISTOW, E.13

Telephone: GRAngewood 4071

Photograph taken in the canteen at Mullard's Mitcham Wor

WHAT IS INDUSTRY DOING ABOUT MILK?

A great deal. Now that the cool fresh pinta is our national drink (milk consumption has risen by over 22,000,000 gallons in the past year), more and more managements are finding it necessary to provide a milk service for their staff. In the canteen the drinking pinta is served from a refrigerated dispenser — quickly, simply and pleasantly. On the factory floor there are milk vending machines, or milk is served from a trolley.

Everyone benefits from milk in industry — that's one thing about which management and men always agree. The daily pinta habit is a good one.

Refrigerated milk dispensers, for instance, suit everyone in industry

- Time is money. Milk dispensers save both.
- They encourage milk drinking — and that means healthier workers.
- They're cheap to buy. Easy to rent. And simple to install.
- They're easy to keep clean. And they always look gay and attractive.
- They make a full milk-bar service possible — always popular with young workers.
- Milk, made readily available, is evidence of good working conditions.
- Everyone appreciates really cool, fresh milk.

EVERYONE PROFITS FROM MILK IN INDUSTRY

Write to the National Milk Publicity Council Inc., Melbourne House, Aldwych, London, W.C.2. We'll be pleased to give you full information about milk in industry

so eliminating the necessity for a head-strap except in unusual conditions such as gales.

Other features of the harness are: a soft foam plastic plate incorporated inside the top of the cradle, an unalterable safety clearance in excess of one inch, and a replaceable buffer band quite separate from the harness to provide protection at the back of the hat when worn headsling style.

The sweatband is of self-adhesive foam plastic which can be easily renewed. There are no metal parts either in the hat or harness. The makers emphasize this as a feature which makes it the ideal safety hat for use wherever there is any danger from electricity.

Enquiry Ref. No. S11/2

Gentle Solution

WHEREVER there is a danger of chemicals in the eye, not only obvious corrosives, but also solvents, organic chemicals and strong solutions of salts, an eye-wash should be ready at hand.

Cuxon, Gerrard have based their complete set of eyewashing equipment upon the idea of a standard remedy applying the simplest and safest techniques.

The equipment consists of a cabinet containing two 1-pint eye-wash bottles, a large 4-pint bottle of solution for refilling, five sterile eye-pads, and one card of instructions.

The bottles are made of neutral hard glass and have a central spout and are fitted with a plastic dip tube so that they pour evenly onto the eye whenever they are tipped.

The cabinet is of wood, which is as resistant to corrosives as possible. The front opens upwards, closing by its own weight. It is painted green with white lettering and is supplied for wall attachment.

Two types of eye wash solution are supplied, Normal Saline in either dilute, ready-for-use or concentrated

form, and Phosphate Buffer in dilute form. There is no stinging with these solutions which are preserved by a Benzalkonium Chloride.

The equipment, excluding Lotions costs £4 17s. 6d.

Enquiry Ref. No. S11/3

Quick Posting

INCLUDED in the wide range of equipment by *Pitney-Bowes Ltd.*, are two new postage meter machines. The Simplex desk model has been designed to meet the requirements of the smaller mailer with a post from 10/20 letters per day upwards. It can print every denomination from ½d. to 1s. 0½d., and therefore can deal with invoices, circulars, statements, inland letters and even the occasional parcel or airmail.

The other postage meter machine—the *Automax*—is available for hand or electric operation and can handle any type of mail, letter, parcel, packet or wrapper. It can print any denomination of postage from ½d. to 99s. 11½d. in one impression, and has an automatic trip mechanism which prevents any possibility of waste through careless or inexpert operation. The electric model also incorporates a labelling device which automatically cuts, feeds and delivers gummed franked labels ready for affixing to bulky packets or parcels.

Enquiry Ref. No. O11/1

Executive Time Saver

JUNIOR executives worry about how to get people into their offices. Senior executives have trouble in keeping people out. Interruptions disturb interviews and discussions and disrupt the trend of thought when letters or memos are being dictated. The *Receptionade* fulfils the need for a vigilant guard on the busy executive's door.

The apparatus consists of two units, one of which is placed on the desk and the other fixed to the door. Where offices have two doors, two door-units may be operated from the one placed on the desk.

The desk-unit, of cream or grey plastic, measures only 4 x 3½ x 1½-in. It has three lamps: red, amber and green, indicating 'Engaged', 'Wait' and 'Enter' respectively. Below each lamp there is a press-button switch to operate the signals.

Installation is simple. All that is required is to plug into the mains and arrange for the inter-connecting cable, complete with flex, to be inserted into the desk and door units. The latter are provided with keyhold mounting holes for affixing on the door lintel or on the wall nearby. Alternatively, it can be mounted on a receptionist's desk.

Safety is guaranteed by the fact that each unit contains its own fuse. A mains transformer, incorporated in the desk unit, supplies the necessary current for the 12-volt indicating lamps.

Retail price of two units complete

(continued on page 48)

METROPOLITAN COLLEGE

Specialised Postal Tuition—Taken at Home in Leisure Time—for the Membership Examination of the

INSTITUTE OF PERSONNEL MANAGEMENT

Also interesting, authoritative (non-examination) postal tuition in Personnel Management, Economics, Business Administration, Industrial Law, Statistics, Social Administration, etc.

Send today for free prospectus, mentioning exam. or subjects in which interested, to the Secretary, G1/85, Metropolitan College, St. Albans (or call at 30 Queen Victoria Street, London, E.C.4).

ST ALBANS

ROSS

tender, new seasons . . .

PEAS

direct from the rich farmlands of Norfolk and Lincolnshire, harvested in their prime, processed by the most modern machinery, are available to *you* the whole year round. Sweet and tender Ross peas are pod fresh—as fresh as the moment of picking.

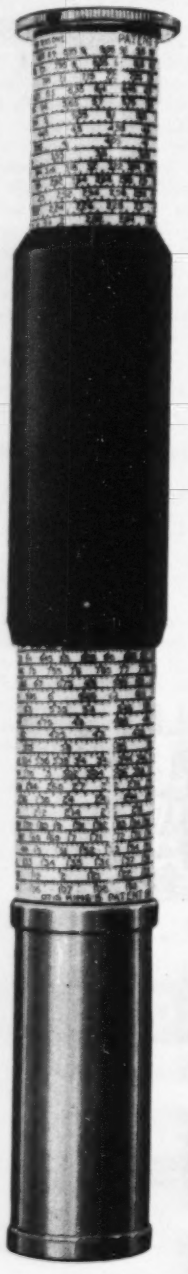
Ross peas and other Ross foods are served aboard many of the world's luxury liners.

ROSS

Frozen **Foods**

ROSS FOODS LIMITED · HUMBER BRIDGE ROAD · GRIMSBY

Three quarters actual size (closes to 6 in.)



THE OTIS KING CALCULATOR NON-MECHANICAL — POCKET SIZE — SIMPLE TO USE
SOLVES MULTIPLICATION — DIVISION — FOREIGN EXCHANGE AND WEIGHT CONVERSION QUICKER THAN
MACHINES COSTING TEN TIMES AS MUCH — INVALUABLE TO ACCOUNTANTS, TECHNOLOGISTS, ENGINEERS,
CHEMISTS — SENT ON 14 DAYS APPROVAL FROM **CARBIC LIMITED (Dept. PM) 54 DUNDONALD RD., LONDON, S.W.19**

PRICE £3 . 2 . 6

with fuses, mains transformer, 9 ft. mains lead and 30 ft. of interconnecting cable together with plugs is £9 9s.

Enquiry Ref. No. O11/2

Catering Catalogue

DREDGERS (aluminium) and triturators are amongst the most exotic items listed in the *Lockhart* catalogue of catering equipment. Sixty-four illustrated pages give this comprehensive publication a claim to the title of the Encyclopaedia Britannica of caterers.

The catalogue ranges through such articles as teapots, fish fryers, mixing bowls, sugar servers and warming plates to refrigerators, potato chip machines and step ladders. In addition, the latest developments in the catering world, such as vending machines, are fully included.

Full details and illustrations are supplied of each article which is listed. Appearance, dimensions, capacity and materials are fully described and the net price is quoted.

With the emphasis on labour-saving devices, items to deal with the most arduous chores such as mixers, slicers, and potato peelers from Peerless, Hobart and Kenwood are included. Articles, now being supplied in increasing numbers, cover the smaller but no less tedious kitchen jobs: the catalogue shows butter patting machines, apple peeling and coring machines and a variety of can openers.

Apart from the many different types of culinary equipment, there are also sections devoted to kitchen and dining-room furniture, bar equipment, glassware, hotel and domestic-weight earthenware and stoneware, and crockery made of plastic, polythene and perspex. Paper napkins, plates and cups of disposal material have not been neglected.

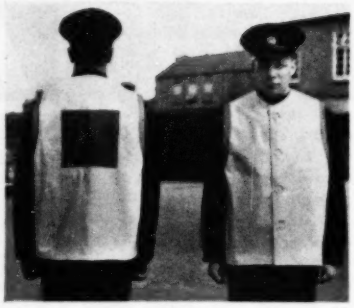
Protective clothing and cleaning materials complete this exhaustive list.

Enquiry Ref. No. C11/1

Night Hazards

NIGHT duty can prove hazardous for factory servicemen, whether on routine patrol or engaged in emergency work. *Jeltek Safety Jerkin* is a garment which is readily visible in darkness and goes a long way towards removing traffic danger.

Made from PVC-coated, white heavyweight material, the jerkin has a 9 inch square of Scotchlite reflective fabric



built into the back, and a 1 inch strip fixed around each shoulder. These reflective trimmings are startlingly bright in the lights of oncoming traffic. The jerkin also provides the wearer with added protection in bad weather.

Enquiry Ref. No. W11/1

If it is new . . . if it improves efficiency or work conditions, send details and photographs to P M & M for inclusion in this closely read 'Equipment Market'.

Hardy Footwear

USE of a German-developed synthetic material has produced some remarkable features in a new range of boots, shoes and overshoes.

Oilmax is proofed against oils, fat, paraffin, petrol and other solvents, and is unaffected by acids or alkalis. The material combines toughness with comfort and flexibility. Each model has built into it a shock-absorbing insole with ventilation properties.

A second range is designed to provide long life under exceptionally gruelling conditions. The price of the knee-boot is approximately double that of standard rubber boots, but it is claimed to have six times the life of such boots if used in rugged conditions.

An unusual feature in both cases is that the footwear is unlined. Lining can be, and frequently is, extremely unhygienic, especially in cases where boots or shoes are issued for the job and not for the personal use of particular individuals.

A high standard of hygiene is ensured in these ranges by the fact that the footwear is very well ventilated and because, being unlined, it can be easily washed out with mild disinfectant and

dry within half an hour.

Lining is not necessary, because the new synthetic materials have extremely low conductivity. The footwear will keep feet warm in winter and remain comparatively cool in summer. The soles of the boots are non-slip on smooth, wet and most greasy floors.

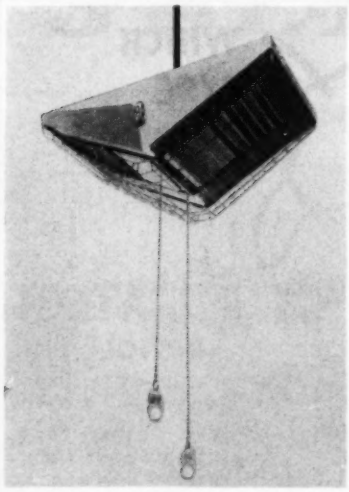
Enquiry Ref. No. W11/2

Gas Air Heater

OVERHEAD electric heating has had the disadvantage of drying the air and inducing a heavy atmosphere in the room. For a working environment gas is, in this respect, a better medium.

A new gas radiant air heater, known as the *Parkinson Schwank Merlin*, could serve a useful function in medium sized areas, such as the larger office or the smaller canteen hall, where directed heat is required.

Cheapness is the keynote of its operation. It is cheap to install and extremely cheap to run. Although it has an output of 13,000 b.t.u. an hour,



sufficient to heat approximately 2,700 cubic feet of air space, it consumes one-eighth of a therm of gas an hour.

It is strongly constructed in anti-corrosion aluminized steel, yet weighs only nine pounds. The design is attractive and the whole heater is

(continued on page 52)

Hygiene - Efficiency - Economy

Three compelling reasons why business corporations, institutional, educational and public authorities, throughout the country are switching over to the CRESCO SERVICE, which provides:

* A towel which REDUCES COSTS. No laundry bills, no sorting, no checking, no listing. Replacement and disposal are simplicity itself.
* A fresh clean towel for every user . . . no queueing, nothing mechanical to break down.
* A towel of balanced strength and absorbency made from the finest quality paper.
* A towel that DRIES DRIER FASTER and prevents the spread of infection.

LET US QUOTE YOU FOR

CRESCO

THE COMPLETE *All British* WASH ROOM SERVICE

For full details of the CRESCO SERVICE, please write to:

CRESCO LTD., BROUGHAM ROAD WORKS, WORTHING, SUSSEX.

Telephone . . . . . Worthing 6100-1

INVERESK GROUP

for healthy hands, use

GRE-SOL

Dirty hands invite infection—safeguard them with GRE-SOL. GRE-SOL gets rid of grime, grease, paint and tar in seconds and keeps hands clean and protected for hours. GRE-SOL is a stable, non-abrasive jelly cleanser, antiseptic and pleasantly refreshing to use.

AWARDED THE CERTIFICATE OF THE ROYAL INSTITUTE OF PUBLIC HEALTH & HYGIENE

Dispenser nozzle simply screws on to standard can—no drips—no wastage—no messy filling. Capacity—one Imperial Gallon.

GRE-SOLVENT

still the greatest name for cleaning materials !
HILON Degreasant for floors, walls and machinery.
HILO Foam Cleanser in canisters and in bulk.
GRE-SOLVENT PASTE for cleansing rubber and composition floors tiles, etc.
LIQUID DETERGENT In bulk for dish-washing and general cleaning and vehicle body washing.

For samples and further details please write to : **THE GRE-SOLVENT COMPANY, WHITEHALL ROAD, LEEDS. 12.**

PARK YOUR CYCLES THE ODONI WAY

(REGD. TRADE MARK)

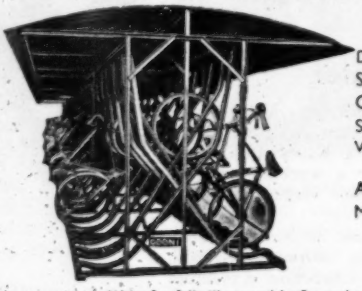
With Odoni Patent "All-Steel"

BICYCLE STANDS

Types to suit all possible requirements

SINGLE OR DOUBLE-SIDED, HORIZONTAL OR SEMI-VERTICAL

For Indoor and Outdoor use



TYPE 10

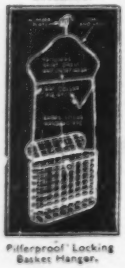
DOUBLE SIDED SEMI-VERTICAL OUTDOOR STAND, BUILT WITH CLOSE RACK ARRANGEMENT (CYCLES AT 12" CENTRES)

Write for fully illustrated leaflet and price list to Sole Manufacturers and Patentees

ALFRED A. ODONI & CO. LTD.
SALISBURY HOUSE, LONDON WALL
Tel. No.: **LONDON, E.C.2** Tel. Add.:
NATional 8525/6 (WORKS : LONDON, N.W) Odoni, Stock, London

...and here I recommend the **SIEBER** *CLOAKROOM because it is wasteful to spend more only to get less, when for less you can get more.*

- Saving of valuable floor space.
- Neat and compact storage of all wearing apparel.
- Thorough airing and drying of rain-soaked garments, reduces absenteeism, due to colds, etc.
- Maximum hygiene; as neither dust, dirt nor musty odours can cause a breeding ground for vermin or infectious diseases.
- No costly repair and maintenance charges.
- Low cost proves an investment, not an expense.
- The "SIEBER" Hanger System fully meets New Factory Act



Pilferproof Locking Basket Hanger.

Simple to install in new or existing buildings.

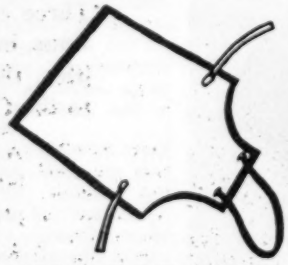
Pilferproof Locking Basket and other types of Hangers supplied.

Installed in Factories, Warehouses, Offices, Swimming Baths

Write for literature and details of our Free Planning Service.

SIEBER **AIR-DRY Hanger Equipment**

James Sieber Eqpt. Co. Ltd., 72 Africa Hse. Kingsway London W.C.2. Tel: HOLborn 4531 & 5121



WHICH TYPE TO BUY ?

CHOOSE FROM THE DURATECT RANGE

***DURATECT APRONS**	A choice of twenty or more from conventional materials
***FEATHERTECT APRONS**	A selection of Five Super Quality Lightweight Industrial Aprons
***FANCYTECT APRONS**	Fancy Patterned, Fabric Reinforced Women's Industrial Aprons

DURATECT LTD
58 VILLA ROAD
BIRMINGHAM 19
NORthern 6875

* Trade Marks

Patent applied for

IMPROVE YOUR STAFF'S WELFARE WITH

SPACE-SAVING **multilok** EQUIPMENT

Write to INDUSTRIAL ASSOCIATES LTD *of*
64-66 Oxford St., LONDON, W.1. Tel: LANGHAM 4847
or to the MANUFACTURERS
OOSTWOUD FABRIEKEN N.V., UTRECHT (Holland)

JELTEK

in industry

Photograph by kind permission of B.O.A.C.

Designed for service engineers working in exposed conditions, the CREWSUIT illustrated on the left is made from material giving air-conditioned protection.

Send for literature describing this and other garments in the full range of 'JELTEK' Protective Clothing.

JELTEK

JELTEK LIMITED - GREEN LANE - HOUNSLOW - MIDDLESEX - HOU 7281/7

BEACON

Ladies'
Nylon
Coats

"Wash and Wear"

These "dip and dry" coats are a perfect combination of smartness, economy and long wear. No laundry problems, no ironing, and they keep their fresh daintiness throughout their long life. Available in a range of 11 colours.

Enquiries to DEPT. P.M.1.

STYLE QUALITY — LONG LIFE NON-IRON

WOOD HARRIS
& CO. LTD.
HALIFAX
Phone
HALIFAX 67211

finished in honey-mottle, heat-resistant vitreous enamel. Installation is by single suspension from the ceiling. It can be switched on and off like a light.

Cost of the heater is £10 10s.

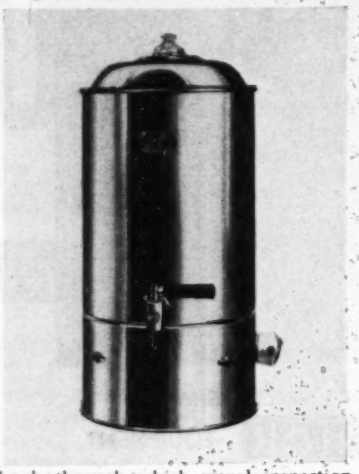
Enquiry Ref. No. W11/3

Two-Gallon Percolator

THE British workman's exaggerated concern about his tea probably stems from the fact that the coffee offered him is so terrible.

An attack on his traditional preference might be successfully launched with the aid of the new *KE4* electric coffee percolator. The main features which recommend the model as suitable for use in most catering establishments are its capacity and quick operating speed. It will produce two gallons of coffee at one time, and efficient elements give an average percolation time of 8 to 12 minutes, using 1 to 1¼ lbs. medium to coarse grind coffee.

The percolator is attractive to look at, consisting of a chromium plated copper case, fitted with an easy clean draw-off tap. The cover lifts off and is complete with a heat resisting glass



knob through which visual inspection of the percolation is possible.

The aluminium interior, comprising percolator cone, basket and spreader, is readily removable for cleaning and re-charging. For safety, two self-reset auto cut-out immersion heaters are fitted, each having its own switch.

Overall height is 21¼ in. with a body diameter of 11¼ in. The electrical loading is 3 kW an hour.

Enquiry Ref. No. W11/4

Bank Note Counter

A MACHINE which will count bank notes at the rate of 100 every seven seconds, is the latest of the *Block & Anderson* range of business machines.

It will count both freshly issued and used bank notes, even when they are mixed together, and the possibility of overcounting has been completely obviated by the fact that each note passes through a photo-electric cell which operates the electrical counter. Feeding is positive and precise and the counting operation is stopped instantly if a note in a crumpled or torn condition is fed into the machine.

Enquiry Ref. No. E11/1

SAFETY FIRST

BARRYWALD REGD. ELECTRICAL AUTOMATIC INCINERATOR

THE ONLY INCINERATOR INCORPORATING OUR PATENTED SAFETY DEVICES

★ Manufactured by the first and leading Sanitary Incinerator Specialists in the world.
★ Guaranteed for one year and backed by a full service organisation.
★ Simple and cheap to install.
★ Approved by the Royal Institute of Public Health and Hygiene.
★ Regularly supplied to and approved by all H.M. Government Departments, Local Administrations and Educational Authorities, Hospital Management Committees, General Industry.

Patents 555062-621085 and Foreign Patents.

ECONOMICAL
EFFICIENT
FOOLPROOF
INDISPENSABLE

By the simple depression of a lever the **Barrywald Sanitary Incinerator** automatically destroys sanitary towels, surgical dressings, documents, etc. It solves major and vital hygiene and security problems in factories, offices, institutions, blocks of flats, etc.

Write or phone today for illustrated leaflet or demonstration.

SANIGUARD APPLIANCES LIMITED
62. LONDON WALL. LONDON. E.C.2
Telephone: NATIONAL 8881 8882
DIVISION OF ALLIED METALS LTD.

Personal Memo
to PERSONNEL OFFICERS
the modern approach to a feminine problem
YOUR FEMALE WORKERS will appreciate the provision of the most efficient and reliable sanitary protection possible—MENE and MENEX.
Any question of 'problem times' which may affect women in industry, can be effectively lessened by the choice of these highly efficient sanitary towels, trusted by women for over fifty years.
Scientifically designed and made from materials of the finest quality, extra-absorbent, with special moisture-proof backs, MENE and MENEX provide the maximum comfort and protection. They can be recommended with confidence for women actively engaged in a busy life.
MENE and MENEX are supplied in standard packs of one dozen towels, and are also available in individual cartons especially designed for use with our automatic vending machines.

Write today for a special quotation to:—

ROBINSON & SONS LTD.

Chesterfield and London

Mene REGD.

Menex SOLUBLE

MANAGEMENT DIARY FOR DECEMBER

BRITISH INSTITUTE OF MANAGEMENT
Non-residential meetings outside London
6-7 **Manchester.** Preventive maintenance seminar
7 **Leeds.** Communications seminar
13 **Glasgow.** Controlling a sales force seminar
Non-residential meetings in London
5 Marketing research for industrial products (Home & export markets)
6 Interfirm comparison seminar
14 Supervisory training seminar.

COLLEGE FOR PRODUCTION TECHNOLOGY (Ashford, Kent)
4-8 Five-day course comprising three days Bugetary Control & Cost Accounting and two days Internal Audit: the course is suitable for middle and senior management of industrial organizations, also executive directors concerned with administration and production
4-8 Five-day foremanship course: this course indicates a practical way of handling human and production problems; thereby securing greater co-operation on the shop floor and on the site.

INDUSTRIAL WELFARE SOCIETY
Non-residential courses and conferences at Robert Hyde House, London
30 November-1 The human aspects of management
1 Filmstrip demonstration
4-5 Economics for managements
6 Method study for women supervisors
12 New-thinking luncheon
12-13 Factory guides
12-14 Interviewing
14 Environment and health of the office worker.
Non-residential meetings outside London
5 **Glasgow.** Advisory meeting
12 **Manchester.** Sales executives.
Residential conferences outside London
4-8 **Harrogate.** Foremen's training course.

INSTITUTE OF INDUSTRIAL SUPERVISORS
Week-end residential courses in England
1-3 **Buxton.** The practice of supervisory management: exchange of experience and ideas about the job of being responsible for the work of others. Designed to convey what the supervisor must know about management
1-3 **Bournemouth.** Industrial relations and industrial law: a summary of the formal procedures governing relationships between workers' representatives, trades unions, employers and the State with examples and case studies
8-10 **Leamington Spa.** Human relations: special consideration is given to the problems in human relationships which every supervisor must be able to solve.

INSTITUTE OF PERSONNEL MANAGEMENT
Residential course in London
11-15 Wage and salary administration.

NATIONAL INSTITUTE OF INDUSTRIAL PSYCHOLOGY
27 Nov-8 Course on intelligence testing: this course takes two weeks. The theory underlying intelligence testing and test construction, the use of test results and their interpretation: also instruction in the giving and marking of four intelligence tests, two for use with applicants for routine jobs and two suitable for candidates for more senior office work or junior management positions
11-13 Course on tests for the selection of clerical workers, instruction is given in the adminstration and scoring of a battery of tests specially designed for use in procedures for the selection of clerical staff. Open only to those who have taken the course in Intelligence Testing.

OTMA MANAGEMENT & SALES TRAINING CONSULTANTS
Courses in London
4-6 Running a meeting: how to avoid waste of time and company money and to get the best results at all meetings
6-8 Letter and report writing
11-15 Management communications: covers effective speaking letter and report writing, and running and taking part in business meetings.
14-15 Successful speaking: for directors and management at all levels.

ROFFEY PARK INSTITUTE (Horsham, Sussex)
11-15 Human relations: the role of the manager, interviewing, communication, the motive to work, joint consultation. All sides are effectively backed by syndicate and casestudy work, with certain uses of visual aids.

SCHOOL OF WORK STUDY, LONDON
11-8 January Six weeks full-time training in work study. Two of these weeks are spent under supervision in 'host' factories to gain practical experience.

SUNDRIDGE PARK MANAGEMENT CENTRE (Bromley, Kent)
3-8 Course in marketing and sales management: concerned with the planning and control of a complete marketing operation. The syllabus covers sales organization, marketing research, market potentials and selling performance, operating a sales force and determining sales policy
3-8 Works management: the syllabus includes such aspects as works organization, the planning and control of production, costing, stock control and operating the working group.

UNIVERSITY OF BIRMINGHAM (Institute for Engineering Production)
4-15 Operational research.

URCHFONT MANOR (Devizes, Wilts)
4-8 Women and work: for women managers and supervisors in offices and industry.

CLASSIFIED ADVERTISEMENTS

CLUB SECRETARIES. Send for catalogue at **WHOLESALE** prices. TOYS,, GAMES etc., for your children's Xmas Party. TROPHY CUPS, MEDALS, SPORTS PRIZES, FANCY GOODS, CARNIVAL HATS, BALLOONS, NOVELTIES, FUND RAISERS etc. Largest suppliers to clubs in the country. We stock over 3,000 different lines. Swinnertons Ltd., Dept. P.M., Tantarra Street, Walsall.

AUTOMAT the QUALITY Vending Machine. For every user, three years' unconditional guarantee on all machines, buy, rental, or hire purchase. AUTOMAT LTD., 173 Elmers End Road, Beckenham, Kent. BECKENHAM 8282 (5 lines).

THIS MONTH'S ADVERTISERS

CATERING EQUIPMENT & SERVICES
J. Farquharson & Sons Ltd., 18
Lily Cups & Containers (England) Ltd., 6
Peter Merchant Ltd., 36
New Equipment Ltd., 43
Remploy Ltd., 37
Ross Group, 47

CLEANING
Domestos Ltd., 40

EFFICIENCY AIDS
Carbic Ltd., 48
Llewellin's Machine Co. Ltd., 4

EMPLOYMENT SERVICES
Appointments Vacant, 2 *and* 4

HEALTH
National Milk Council, 45
Rozalex Ltd., 43
Scientific Pharmacals Ltd., 39
Vernon & Co. Ltd., 20

HYGIENE
Cresco Ltd., 49
Deb Chemical Proprietaries Ltd., 42
General Electric Co. Ltd., 11
Gre-Solvent Co. Ltd., 50
Robinson & Sons Ltd., 53
Saniguard Appliances Ltd., 52
Wandsworth Electrical Manufacturing Co. Ltd., 19
Wimsol Ltd., 21

LOCKERS & CLOAKROOM EQUIPMENT
Oostwoud Fabrieken, 51
J. H. Randall & Son Ltd., 17
James Sieber Equipment Co. Ltd., 50

OFFICE SYSTEMS AND FURNITURE
Formica Ltd., 24

OVERALLS & PROTECTIVE CLOTHING
H. G. Bennett & Co. (Gloves) Ltd., 20
Duratect Ltd., 50
E. & R. Garrould Ltd., 42
Harboro' Rubber Co. Ltd., 42
Jeltek Ltd., 51
Pyrene-Panorama Ltd., 15
Supercraft (Garments) Ltd., 10
Welfit Ltd., 44
H. Wheeler & Co. Ltd., 44
Wilkins & Denton Ltd., *inside back cover*
Wood Harris & Co. Ltd., 51

SAFETY EQUIPMENT
British Celanese Ltd., 16
Irving Air Chute of Gt. Britain Ltd., 21
Siebe Gorman Ltd., 38

SERVICES
Gas Council, *back cover*

TRAINING COURSES
Metropolitan College, 46

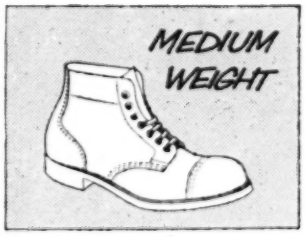
VENDING EQUIPMENT
Ditchburn Vending Machines Ltd., *inside front cover*
Gloster Equipment Ltd., 8
Joseph Sankey & Sons Ltd., 14
W. M. Still & Sons Ltd., 12
Stockdales Industrial Venders Ltd., 39

VISUAL AIDS
Rank Precision Industries Ltd., 13

WELFARE FACILITIES
Astor Hotel, 43
Alfred A. Odoni & Sons Ltd., 50
H. Peel Ltd., 42

TOTECTORS

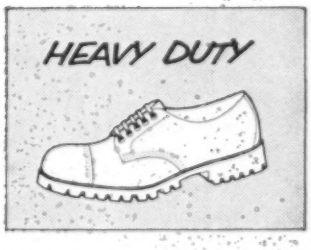
All comply with B.S. 1870.



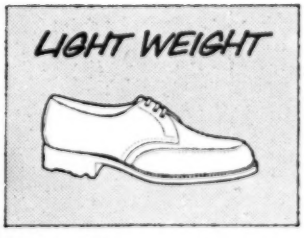
TOTECTORS

£1,000 free insurance covers all men's lines.

TOTECTORS



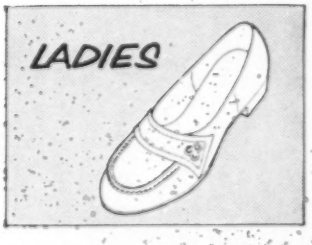
Are indistinguishable from ordinary footwear.



TOTECTORS

Are also available in smart styles for women.

TOTECTORS

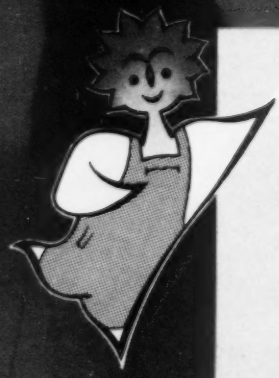


The pioneers of safety footwear.

WILKINS & DENTON LIMITED · TOTECTOR HOUSE · RUSHDEN · NORTHAMPTONSHIRE

Get Going with GAS

THE FLEXIBLE FUEL SERVICE



Get going with *Gas*, whatever the job. *Gas* gives fierce or gentle *Heat*; fast or slow *Heat*; flexible *Heat*; fully automatic *Heat*... but always clean, economic and reliable *Heat*. With the benefits of the industry's research and its free technical advisory service, enjoy confidence with *Gas*.

ISSUED BY THE GAS COUNCIL

D/2